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MONTHLY PROGRESS REPORT NO. 17
for the period July 1-31, 1977
to
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

1860 Lincoln St., Suite 900
Denver, CO 80203

Contract No. 68-01-1946

Utah U-a/U-b Tract

aeromet inc.

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by

AEROMET, INC.

P.O. Box 45447

Tulsa, OK 74145

Utah U-a/U-b Tract

1.0 INTRODUCTION

Low level temperature and wind data were collected for July, 1977 at the U-a/U-b Tract 5 miles south of Bonanza, Utah. Data collection terminated on 30 June at Casper, Wyoming; the Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville, Utah; and Rock Springs, Wyoming. The data were collected using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made ½ hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from -50°C to +50°C. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 . . . . The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.

2.0 DATA SUMMARY

2.1 Utah U-a/U-b Tract Field Summary

No problems were experienced at the site for the month of July. The observer attempted 93% of the scheduled pilot balloon launches which resulted in 80% recovery of the temperature data and 76% recovery of the wind data. A 3% loss in temperature data resulted from a malfunctioning T-Sonde while the additional 10% loss resulted from poor weather conditions. The 17% loss in wind data also resulted from poor weather conditions.

The contract to collect the temperature and wind data at the U-a/U-b site was modified to extend four additional months, i.e. October, 1977 through January, 1978. Negotiations are taking place to continue the data collection on the tract.

It was determined that the wind direction measurements are referenced to magnetic north. Since it is so late in the project all wind directions will continue to be referenced to magnetic north for the remainder of the contract. The user of the data can correct for the constant bias in the wind direction.

2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release ½ hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D means that no mixing layer height was defined and sfc is the abbreviation for surface.

2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.

3.0 DATA PROCESSING

3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the $\Delta T/100m$ criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	ΔT (°C/100m)	WIND SPEED
A	<-1.9	≤ 2
B	-1.9 - -1.7	≤ 5
C	-1.7 - -1.5	≤ 6
D	-1.5 - -0.5	ALL SPEEDS
E	-0.5 - 1.5	≤ 5
F	>1.5	≤ 3

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,

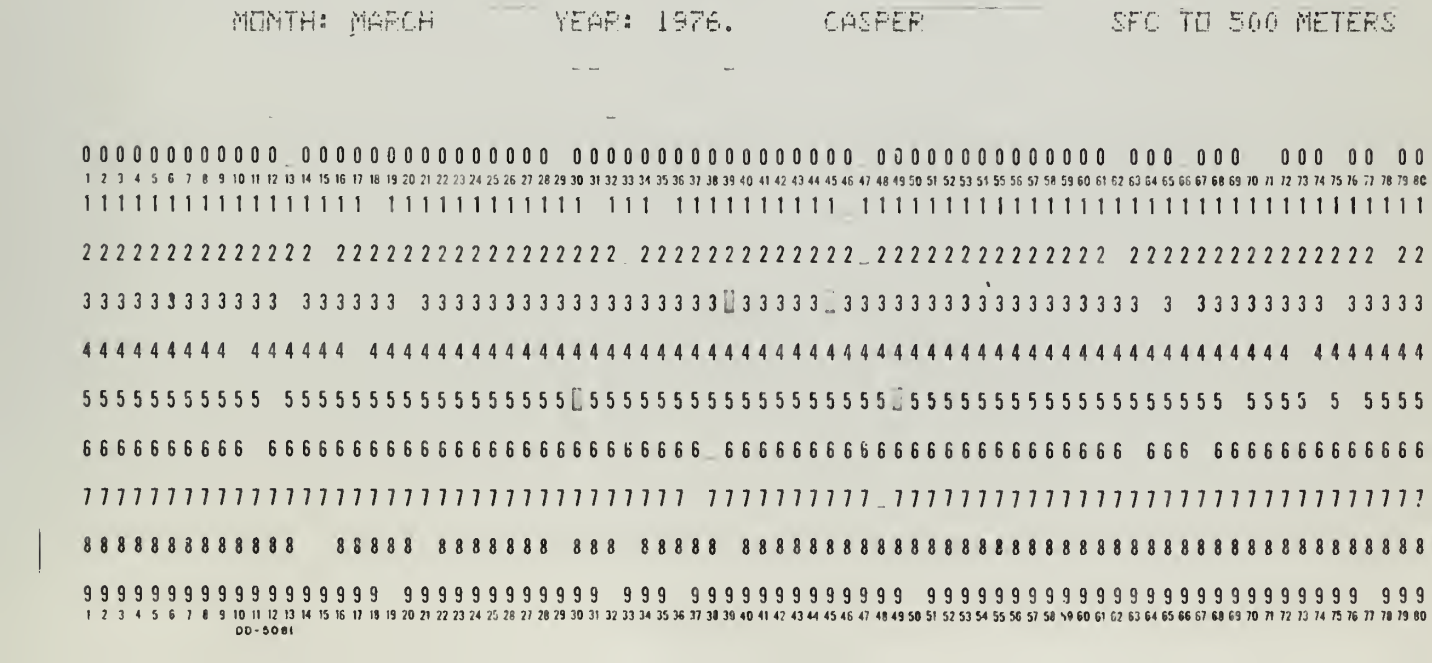
if the $\Delta T/100m$ value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a ΔT value of 1.7°C/100 m and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.

3.2 Punched Output

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL(4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below,



and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
July, 1977

July 2	0454	
	1411	Temperature data were interpolated over the interval from 1 minute to 13 minutes.
July 4	0452	No wind data were collected due to rain.
	1400	The observer was unable to launch the balloon due to lightning.
July 6	0454	The secondary observer lost sight of the balloon after 8 minutes.
	1400	Temperature data were interpolated over the interval from 3 1/4 to 7 minutes.
July 8	MORN	The observer missed doing the launch.
	AFTN	The observer attempted twice to release the balloon in the strong winds. No data were collected.
July 10	0558	The temperature sonde failed approximately 1 minute into the flight.
	1358	
July 12	0457	
	1350	Temperature data were interpolated from 9 to 12 minutes.
July 14	0500	
	1352	
July 16	0459	
	1354	

PILOT BALLOON SUMMARY
Utah U-a/U-b Tract
July, 1977

July 18	0501	
	AFTN	The observer did not attempt the afternoon launch due to an electrical storm.
July 20	0504	
	1350	
July 22	0500	
	1350	
July 24	0505	No wind data were collected due to rain.
	1350	The balloon entered the clouds after 8 1/2 minutes.
July 26	0506	
	1350	
July 28	0509	Temperature data were interpolated from 4 1/2 to 9 minutes.
	1350	
July 30	MORN	The observer overslept and missed the morning launch.
	1350	

AVERAGE MIXING LAYER HEIGHT
Utah U-a/U-b Tract
July, 1977

HEIGHT IN METERS

DATE	MORNING 0°	MORNING +5°	MORNING +10°	AFTERNOON 0°	AFTERNOON +5°	AFTERNOON +10°
2	sfc	500m	1200m	1050m	2800m	3650m
4	sfc	1400m	2500m			
6	sfc	175m	550m	1900m	2350m	3550m
8						
10	sfc			3400m	N/D	N/D
12	sfc	100m	300m	2300m	4150m	N/D
14	sfc	100m	550m	200m	1050m	1550m
16	sfc	75m	375m	2000m	3750m	N/D
18	sfc	350m	1250m			
20	sfc	750m	1500m	1000m	1700m	3175m
22	sfc	1000m	2150m	200m	800m	2500m
24	sfc	650m	1350m	sfc	1400m	2025m
26	sfc	200m	650m	2350m	N/D	N/D
28	sfc	325m	1000m	1450m	2950m	N/D
30				3050m	N/D	N/D

CLOUD COVER AND SIGNIFICANT WEATHER

Utah U-a/U-b Tract

July, 1977

DATE	MORNING	AFTERNOON
2	broken; rain	broken
4	overcast; rain	overcast; rain, lightning
6	scattered	scattered; rain south
8		broken; winds gusty at 25 mph
10	clear	scattered
12	clear	scattered
14	scattered	scattered
16	scattered	broken
18	broken; RW ALQDS	broken; TRW
20	scattered	broken
22	overcast	broken
24	broken; rain	overcast; RW
26	scattered	scattered
28	clear	scattered
30		broken

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4876

DATE 07/02/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	114.	1.27	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4862

DATE 07/02/77 TIME 14:11MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-3.46
100.	250.	-0.72
250.	500.	-0.80
500.	750.	-0.73
750.	1000.	-0.67
1000.	1500.	-0.74

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4863

DATE 07/04/77 TIME 04:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4861

DATE 07/06/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	686.	0.74	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4868

DATE 07/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.84
100.	250.	-0.76
250.	500.	-1.09
500.	750.	-0.99
750.	1000.	-1.10
1000.	1500.	-1.00

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4878

DATE 07/10/77 TIME 05:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE INSUFFICIENT DATA WITHIN 2000M OF THE SFC

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4883

DATE 07/10/77 TIME 13:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1181.	1222.	0.0	-0.98

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4871

DATE 07/12/77 TIME 04:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	457.	1.46	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4872

DATE 07/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	76.	0.0	-5.66

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4873

DATE 07/14/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	267.	1.77	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4869

DATE 07/14/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
274.	426.	0.0	-0.96

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5117

DATE 07/16/77 TIME 04:59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	343.	1.77	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5124

DATE 07/16/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
244.	282.	0.0	-1.45

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5122

DATE 07/18/77 TIME 05:01MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	152.	1.52	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5120

DATE 07/20/77 TIME 05:04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	76.	0.0	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5118

DATE 07/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1106.	1144.	0.0	-0.96

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5123

DATE 07/22/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
305.	343.	0.0	-0.65

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5121

DATE 07/22/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
115.	153.	0.0	-1.34

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5119

DATE 07/24/77 TIME 05:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	152.	0.0	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5112

DATE 07/24/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	76.	0.0	-0.46

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5114

DATE 07/26/77 TIME 05:06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	381.	0.95	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5116

DATE 07/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-2.36
100.	250.	-0.66
250.	500.	-1.05
500.	750.	-0.98
750.	1000.	-0.98
1000.	1500.	-1.06

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5109

DATE 07/28/77 TIME 05:09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	190.	0.82	0.0

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5111

DATE 07/28/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
608.	646.	0.92	-1.08

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5113

DATE 07/30/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SFC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-2.82
100.	250.	-0.69
250.	500.	-0.87
500.	750.	-1.02
750.	1000.	-1.05
1000.	1500.	-1.03

MONTH: JULY YEAR: 1977 UTAH UAUB ELEV 1585 METERS

HOLZWORTHIS CLASSIFICATION SCHEME FOR INVERSIONS
MODIFIED TO SHOW TOTAL NUMBER INSTEAD OF PERCENT

	INVERSION BASE HEIGHT (M)										
THICKNESS (METERS)	SFC	1-100	101-250	251-500	501-750	751-1000	1001-1500	1501-2000	2001-2500	2501-3000	TOTAL
1 - 100	2	2	2	1	1	0	2	0	0	0	10
101 - 250	4	0	0	1	0	0	0	0	0	0	5
251 - 500	0	0	0	0	0	0	0	0	0	0	0
501 - 750	1	0	0	0	0	0	0	0	0	0	1
751 - 1000	0	0	0	0	0	0	0	0	0	0	0
1001 - 1500	0	0	0	0	0	0	0	0	0	0	0
> 1500	0	0	0	0	0	0	0	0	0	0	0
INV TOTAL	11	2	2	2	1	0	2	0	0	0	20
DT/DZ 5		0	0	0	0	0	0	0	0	0	0
FROM INV 4		1	0	1	0	0	0	0	0	0	2
BASE 3		0	0	1	1	0	2	0	0	0	4
TO 2		0	2	0	0	0	0	0	0	0	2
SFC 1		1	0	0	0	0	0	0	0	0	1
NO INV TOT		4	4	4	4	4	4	DT/DZ (DEG C)/100M			
DT/DZ FOR 5		0	0	0	0	0	0	5= 0.00 TO -0.40			
SAME 4		0	4	1	1	1	1	4=-0.41 TO -0.80			
LAYERS 3		0	0	3	3	3	3	3=-0.81 TO -1.20			
AS INV 2		0	0	0	0	0	0	2=-1.21 TO -1.60			
BASE 1		4	0	0	0	0	0	1=<-1.60			

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE B STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.07	0.07	0.0	0.0	0.0	0.0	3.6	0.14
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.07	0.0	0.0	0.0	0.0	4.3	0.07
SSE	0.0	0.07	0.07	0.0	0.0	0.0	5.6	0.14
S	0.0	0.0	0.07	0.0	0.0	0.0	6.8	0.07
SSW	0.0	0.0	0.14	0.0	0.0	0.0	8.4	0.14
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.07	0.0	0.0	0.0	0.0	5.1	0.07
W	0.0	0.07	0.07	0.0	0.0	0.0	6.0	0.14
WNW	0.07	0.14	0.0	0.0	0.0	0.0	4.1	0.21
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.8	4.8	7.7	0.0	0.0	0.0		0.0
TOTAL	0.14	0.50	0.36	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.61

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.11	0.0	0.0	0.0	0.0	0.0	0.5	0.11
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.22	0.0	0.0	0.0	0.0	0.0	1.1	0.22
SSE	0.11	0.0	0.0	0.0	0.0	0.0	2.9	0.11
S	0.11	0.11	0.0	0.0	0.0	0.0	2.9	0.22
SSW	0.11	0.0	0.0	0.0	0.0	0.0	2.3	0.11
SW	0.11	0.0	0.0	0.0	0.0	0.0	1.8	0.11
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.11	0.0	0.0	0.0	0.0	0.0	2.9	0.11
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.7	4.9	0.0	0.0	0.0	0.0		0.0
TOTAL	0.89	0.11	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.39

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
W	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0		0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

MONTH: JULY YEAR: 1977 UTAH UAUB SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	SPEED (METER/SEC) 0-3	4-6	7-10	11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.04	0.04	0.0	0.0	0.0	0.0	3.6	0.09
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.04	0.0	0.0	0.0	0.0	0.0	0.5	0.04
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SE	0.09	0.04	0.0	0.0	0.0	0.0	2.2	0.13
SSE	0.04	0.04	0.04	0.0	0.0	0.0	4.7	0.13
S	0.04	0.04	0.04	0.0	0.0	0.0	4.2	0.13
SSW	0.04	0.0	0.09	0.0	0.0	0.0	6.3	0.13
SW	0.04	0.0	0.0	0.0	0.0	0.0	1.8	0.04
WSW	0.0	0.04	0.0	0.0	0.0	0.0	5.1	0.04
W	0.0	0.04	0.04	0.0	0.0	0.0	6.0	0.09
WNW	0.09	0.09	0.0	0.0	0.0	0.0	3.8	0.17
NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.7	4.8	7.7	0.0	0.0	0.0		0.0
TOTAL	0.43	0.35	0.22	0.0	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 2 SOUNDINGS FROM A SAMPLE OF 25 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA

UTAH UADB ELEV 1585 METERS SOUNDING ID 4876

DATE 07/02/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		12.92		0.0		2.1	135.
1.0	150	1735	14.11	1.19	0.18	3.11	4.0	144.
2.0	300	1885	14.01	-0.09	-1.43	1.50	2.7	145.
2.7	415.	2000.	12.92	-0.82	-1.43	1.49	3.4	213.
3.3	500	2085	12.58	-0.62	-0.90	2.03	2.8	203.
6.0	915.	2500.	12.01	-0.46	-1.44	1.49	12.5	244.
9.3	1415.	3000.	10.17	-1.93	-3.08	-0.16	14.4	226.
15.7	2415.	4000.	2.50	-7.68	-2.43	0.50		
21.5	3415.	5000.	-7.14	-9.64	-3.66	-0.73		
27.9	4415.	6000.	-15.94	-8.80	-3.93	-1.01		

UTAH UADB ELEV 1585 METERS SOUNDING ID 4876

DATE 07/02/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-2.2	3.1	3.8	144.
1.0	152.	1737.	-2.4	3.2	4.0	144.
1.5	229.	1814.	-0.8	2.9	3.1	164.
2.0	305.	1890.	-1.5	2.1	2.6	144.
2.5	381.	1966.	2.8	3.5	4.5	219.
3.0	457.	2042.	0.9	1.9	2.1	206.
3.5	533.	2118.	1.1	3.0	3.2	200.
4.0	610.	2195.	1.2	3.8	4.0	197.
4.5	686.	2271.	2.5	4.9	5.5	207.
5.0	762.	2347.	4.0	5.9	7.2	214.
5.5	838.	2423.	2.6	7.6	8.0	199.
6.0	914.	2499.	11.3	5.4	12.5	244.
6.5	991.	2576.	8.8	6.1	10.7	235.
7.0	1067.	2652.	8.7	8.2	11.9	227.
7.5	1143.	2726.	8.7	9.7	13.0	222.
8.0	1219.	2804.	10.7	11.3	15.6	224.
8.5	1295.	2880.	8.0	9.6	12.5	220.
9.0	1372.	2957.	10.5	10.3	14.7	225.
9.5	1448.	3033.	10.2	9.8	14.2	226.
10.0	1526.	3111.	11.0	10.1	14.9	228.
10.5	1605.	3190.	11.7	8.6	14.5	234.
11.0	1688.	3273.	12.4	8.4	15.0	236.
11.5	1771.	3356.	11.7	8.3	14.3	235.
12.0	1847.	3432.	12.0	7.9	14.4	237.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4862

DATE 07/02/77 TIME 14:11MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		31.99		0.0		2.6	135.
0.7	? 150	1735	28.15	-3.84	-4.67	-1.74	3.2	134.
1.1	? 300	1885	26.61	-1.54	-2.69	0.24	4.5	131.
1.7	415.	?2000.	26.04	-0.57	-2.70	0.23	3.2	162.
2.2	? 500	2085	25.43	-0.60	-2.37	0.56	6.2	207.
5.0	915.	?2500.	22.32	-3.12	-1.72	1.21	5.3	170.
8.2	1415.	?3000.	18.79	-3.53	-2.81	0.12	6.0	245.
14.8	2415.	4000.	11.36	-7.43	-0.18	2.75		
21.2	3415.	5000.	6.71	-4.65	-3.14	-0.21		
27.3	4415.	6000.	-0.80	-7.51	0.0	2.93		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4862

DATE 07/02/77 TIME 14:11MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	1.8	2.6	135.
0.5	76.	1661.	-1.4	1.5	2.1	137.
1.0	280.	1865.	-4.1	3.2	5.2	128.
1.5	388.	1973.	-1.0	1.4	1.7	145.
2.0	464.	2049.	1.4	5.7	5.9	193.
2.5	540.	2125.	4.3	4.8	6.5	222.
3.0	617.	2202.	4.5	1.8	4.8	248.
3.5	693.	2278.	2.4	2.4	3.4	224.
4.0	769.	2354.	0.6	2.9	3.0	191.
4.5	845.	2430.	-1.9	4.7	5.1	158.
5.0	921.	2506.	-0.8	5.3	5.4	171.
5.5	998.	2583.	-1.2	3.6	3.8	161.
6.0	1074.	2659.	0.7	5.0	5.1	188.
6.5	1150.	2735.	4.5	4.3	6.2	226.
7.0	1226.	2811.	4.9	5.5	7.3	222.
7.5	1304.	2889.	6.1	3.6	7.0	240.
8.0	1380.	2965.	5.0	3.3	6.0	237.
8.5	1456.	3041.	5.9	1.5	6.1	256.
9.0	1533.	3118.	4.2	-2.0	4.6	295.
9.5	1609.	3194.	5.8	-1.2	5.9	282.
10.0	1685.	3270.	8.7	2.0	8.9	257.
10.5	1761.	3346.	6.9	4.3	8.1	238.
11.0	1838.	3423.	6.3	4.3	7.6	236.
11.5	1914.	3499.	8.5	4.4	9.6	243.
12.0	1990.	3575.	9.5	6.4	11.5	236.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4863

DATE 07/04/77 TIME 04:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T SID	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		18.61		0.0		4.1	180.
1.0	150	1735	17.54	-1.07	-3.00	-0.07	M	M
2.0	300	1885	16.46	-1.08	-1.95	0.98	M	M
2.7	415.	2000.	15.65	-0.81	-1.78	1.15	M	M
3.3	500	2085	14.93	-0.72	-1.61	1.32	M	M
6.0	915.	2500.	12.38	-2.55	-1.98	0.94	M	M
9.2	1415.	3000.	9.51	-2.87	-0.37	2.56	M	M
15.8	2415.	4000.	4.08	-5.43	-2.24	0.69		
22.4	3415.	5000.	-0.89	-4.97	-2.08	0.84		
28.9	4415.	6000.	-6.72	-5.83	-2.12	0.81		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4863

DATE 07/04/77 TIME 04:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	4.1	4.1	180.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4861

DATE 07/06/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.60		0.0		3.6	180.
0.3	* 38	1623	10.25		0.0	0.0		
0.8	* 114	1699	12.83		5.79	8.72		
1.0	150	1735	13.01	3.40	3.96	6.89	0.4	96.
2.0	300	1885	14.02	1.01	1.43	4.36	2.4	250.
2.7	415.	2000.	14.65	0.63	-1.07	1.85	4.0	239.
3.3	500	2085	14.14	-0.51	-0.18	2.75	3.0	235.
6.0	915.	2500.	13.28	-0.66	-1.62	1.31	10.3	204.
9.3	1415.	3000.	12.19	-1.29	-0.72	2.21	M	M
15.8	2415.	4000.	5.78	-6.41	-3.15	-0.22		
22.2	3415.	5000.	-0.32	-6.10	-1.70	1.22		
28.2	4415.	6000.	-7.90	-7.58	-1.35	1.57		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4861

DATE 07/06/77 TIME 04:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	3.6	3.6	180.
0.5	76.	1661.	-1.5	2.7	3.0	151.
1.0	152.	1737.	-0.4	0.0	0.4	95.
1.5	229.	1814.	0.0	0.7	0.7	183.
2.0	305.	1890.	2.4	0.7	2.5	254.
2.5	381.	1966.	3.8	2.4	4.5	237.
3.0	457.	2042.	3.0	1.6	3.4	242.
3.5	533.	2118.	2.0	1.7	2.7	230.
4.0	610.	2195.	2.2	2.4	3.2	222.
4.5	686.	2271.	2.2	4.4	4.9	206.
5.0	762.	2347.	1.9	6.7	7.0	196.
5.5	838.	2423.	2.2	8.1	8.4	195.
6.0	914.	2499.	4.2	9.3	10.3	204.
6.5	991.	2576.	4.8	9.4	10.6	207.
7.0	1067.	2652.	5.8	8.3	10.1	215.
7.5	1143.	2728.	7.2	8.2	11.0	221.
8.0	1219.	2804.	7.5	7.2	10.4	226.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4868

DATE 07/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		27.99		0.0		2.1	135.
0.9	150	1735	25.61	-2.37	-2.87	0.06	1.3	33.
1.8	300	1885	23.82	-1.80	-4.77	-1.85	1.1	34.
2.3	415.	2000.	22.57	-1.12	-5.16	-2.23	1.9	53.
2.6	500	2085	21.85	-0.85	-5.01	-2.09	2.5	102.
4.2	915.	?2500.	18.26	-3.59	-4.76	-1.83	2.3	18.
6.2	1415.	?3000.	13.47	-4.79	-4.69	-1.76	1.8	213.
11.9	2415.	4000.	9.79	-3.68	0.55	3.48	10.4	222.
18.0	3415.	5000.	3.51	-6.27	-3.74	-0.81		
24.2	4415.	6000.	-4.77	-8.28	-3.07	-0.14		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4868

DATE 07/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	1.5	2.1	135.
0.5	76.	1661.	-0.6	-0.5	0.7	50.
1.0	174.	1759.	-0.7	-1.3	1.4	27.
1.5	250.	1835.	-0.2	-1.0	1.0	11.
2.0	345.	1930.	-0.9	-0.7	1.2	54.
2.5	475.	2060.	-2.1	-1.6	2.6	52.
3.0	620.	2205.	0.3	-1.8	1.8	349.
3.5	750.	2335.	0.8	-2.1	2.2	339.
4.0	865.	2450.	-0.5	-2.1	2.2	13.
4.5	987.	2572.	-1.0	-2.2	2.4	24.
5.0	1115.	2700.	-0.8	-1.6	1.8	25.
5.5	1239.	2824.	-1.3	-0.9	1.6	54.
6.0	1353.	2938.	-1.5	-0.1	1.5	85.
6.5	1480.	3065.	0.5	-2.1	2.2	348.
7.0	1602.	3187.	4.4	-1.8	4.7	292.
7.5	1715.	3300.	5.6	2.6	6.2	246.
8.0	1823.	3408.	4.8	5.2	7.0	223.
8.5	1900.	3485.	5.9	5.9	8.3	225.
9.0	1976.	3561.	7.0	6.0	9.2	229.
9.5	2052.	3637.	7.4	5.5	9.2	233.
10.0	2128.	3713.	7.3	5.5	9.1	233.
10.5	2204.	3789.	6.7	6.2	9.1	227.
11.0	2281.	3866.	7.1	6.2	9.4	229.
11.5	2357.	3942.	6.5	8.5	10.7	217.
12.0	2433.	4018.	7.2	7.5	10.3	224.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4878

DATE 07/10/77 TIME 05:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		16.19		0.0		5.7	135.
1.0	150	1735	18.43	2.24	4.05	6.98	7.8	155.
2.0	300	1885					5.9	170.
2.7	415.	2000.					8.6	189.
3.3	500	2085					8.0	204.
6.0	915.	2500.					9.8	228.
9.3	1415.	3000.					12.4	242.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4878

DATE 07/10/77 TIME 05:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-4.0	4.0	5.7	135.
0.5	76.	1661.	-2.3	4.9	5.4	155.
1.0	152.	1737.	-3.3	7.1	7.8	155.
1.5	229.	1814.	-2.7	5.9	6.5	156.
2.0	305.	1890.	-0.9	5.8	5.8	171.
2.5	381.	1966.	0.7	8.7	8.7	185.
3.0	457.	2042.	2.1	8.1	8.4	195.
3.5	533.	2118.	4.0	6.5	7.6	211.
4.0	610.	2195.	4.7	3.5	5.9	234.
4.5	686.	2271.	4.6	4.0	6.1	229.
5.0	762.	2347.	5.3	5.3	7.5	225.
5.5	838.	2423.	5.6	5.3	7.7	227.
6.0	914.	2499.	7.3	6.5	9.7	228.
6.5	991.	2576.	8.8	7.0	11.3	231.
7.0	1067.	2652.	9.2	6.2	11.1	236.
7.5	1143.	2728.	10.1	6.0	11.8	239.
8.0	1219.	2804.	10.3	6.3	12.1	238.
8.5	1295.	2880.	11.1	6.4	12.8	240.
9.0	1372.	2957.	10.8	6.3	12.5	240.
9.5	1448.	3033.	11.0	5.6	12.3	243.
10.0	1524.	3109.	11.2	5.9	12.7	242.
10.5	1600.	3185.	11.1	5.2	12.2	245.
11.0	1676.	3261.	13.5	4.9	14.3	250.
11.5	1753.	3338.	14.4	4.5	15.1	253.
12.0	1829.	3414.	14.7	5.0	15.5	251.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4883

DATE 07/10/77 TIME 13:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		26.29		0.0		12.9	270.
1.0	150	1735	24.75	-1.53	-2.54	0.39	11.5	275.
1.9	300	1885	23.14	-1.62	-3.42	-0.49	5.6	272.
2.6	415.	2000.	21.35	-0.97	-6.23	-3.31	5.1	262.
3.0	500	2085	21.35	-0.82	-6.23	-3.31	7.9	264.
4.3	915.	2500.	16.82	-4.51	-5.13	-2.20	12.5	270.
6.8	1415.	3000.	12.28	-4.56	-1.81	1.12	5.3	264.
11.8	2415.	4000.	1.79	-10.47	-5.63	-2.70	11.9	240.
16.2	3415.	5000.	-7.41	-9.22	-2.51	0.42		
22.3	4415.	6000.	-16.03	-8.62	-5.92	-2.99		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4883

DATE 07/10/77 TIME 13:58MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	12.9	0.0	12.9	270.
0.5	76.	1661.	6.8	-0.2	6.8	272.
1.0	153.	1738.	11.7	-1.0	11.7	275.
1.5	230.	1815.	6.8	-0.1	6.8	271.
2.0	314.	1899.	5.4	-0.2	5.4	272.
2.5	403.	1988.	4.6	0.7	4.7	261.
3.0	502.	2087.	7.9	0.9	8.0	264.
3.5	669.	2254.	13.8	1.3	13.8	265.
4.0	838.	2423.	13.6	0.3	13.6	269.
4.5	963.	2548.	11.8	-0.3	11.8	271.
5.0	1089.	2674.	8.0	0.3	8.0	268.
5.5	1181.	2766.	0.3	0.2	0.3	240.
6.0	1263.	2848.	2.7	0.5	2.7	258.
6.5	1368.	2953.	7.8	-0.1	7.8	271.
7.0	1444.	3029.	3.7	0.6	3.7	260.
7.5	1528.	3113.	7.1	1.2	7.2	261.
8.0	1641.	3226.	8.7	2.0	9.0	257.
8.5	1736.	3321.	5.7	2.3	6.1	248.
9.0	1820.	3405.	4.7	3.1	5.6	237.
9.5	1934.	3519.	9.2	3.8	10.0	248.
10.0	2056.	3641.	8.8	4.3	9.5	243.
10.5	2164.	3749.	8.0	4.7	9.3	240.
11.0	2242.	3827.	4.9	5.1	7.1	224.
11.5	2327.	3912.	6.8	9.5	11.7	216.
12.0	2465.	4050.	11.5	3.3	12.0	254.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4871

DATE 07/12/77 TIME 04:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		11.91		0.0		2.6	135.
1.0	150	1735	16.18	4.27	4.98	7.91	2.7	153.
2.0	300	1885	18.34	2.16	2.82	5.75	1.7	108.
2.7	415.	2000.	18.61	0.27	0.18	3.10	1.1	73.
3.3	? 500	2085	18.43	-0.17	-0.70	2.23	0.8	140.
6.0	915.	2500.	16.46	-1.79	-1.42	1.51	2.3	204.
9.3	1415.	3000.	14.01	-2.62	-2.33	0.60	6.8	201.
15.7	2415.	4000.	7.46	-6.56	-2.03	0.90		
21.4	3415.	5000.	-1.76	-9.22	-2.47	0.46		
27.3	4415.	6000.	-9.08	-7.32	-3.30	-0.37		

UTAH, UAUB ELEV 1585 METERS SOUNDING ID 4871

DATE 07/12/77 TIME 04:57MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	1.8	2.6	135.
0.5	76.	1661.	-2.1	3.9	4.4	152.
1.0	152.	1737.	-1.2	2.3	2.6	153.
1.5	229.	1814.	0.8	0.8	1.1	225.
2.0	305.	1890.	-1.7	0.3	1.8	101.
2.5	381.	1966.	-1.6	-0.5	1.7	74.
3.0	457.	2042.	-0.3	-0.1	0.3	73.
3.5	533.	2118.	0.2	1.1	1.1	192.
4.0	610.	2195.	0.2	-0.4	0.5	209.
4.5	686.	2271.	-0.2	0.3	0.3	149.
5.0	762.	2347.	-0.0	0.9	0.9	178.
5.5	838.	2423.	0.1	1.7	1.7	183.
6.0	914.	2499.	0.9	2.0	2.3	204.
6.5	991.	2576.	1.0	2.7	2.9	200.
7.0	1067.	2652.	0.5	3.5	3.5	188.
7.5	1143.	2728.	0.1	4.2	4.2	182.
8.0	1219.	2804.	0.4	5.3	5.3	184.
8.5	1295.	2880.	1.1	6.4	6.5	190.
9.0	1372.	2957.	2.4	6.1	6.5	202.
9.5	1448.	3033.	2.4	6.6	7.0	200.
10.0	1524.	3109.	3.0	6.7	7.3	204.
10.5	1600.	3185.	3.2	6.3	7.1	207.
11.0	1676.	3261.	3.4	6.0	6.9	209.
11.5	1753.	3338.	4.2	5.9	7.2	216.
12.0	1829.	3414.	3.6	5.4	6.5	214.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4872

DATE 07/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		31.99		0.0		6.2	225.
0.8	150	1735	29.27	-2.72	-2.31	0.62	9.3	236.
1.7	300	1885	27.84	-1.43	-6.02	-3.09	4.1	265.
2.2	415.	2000.	25.60	-1.24	-7.26	-4.33	2.4	311.
2.4	500	2085	25.64	-0.96	-7.26	-4.33	2.9	278.
3.6	915.	2500.	21.00	-4.35	-5.55	-2.63	5.1	244.
6.0	1415.	3000.	17.36	-3.93	-2.82	0.10	3.3	232.
12.0	2415.	4000.	8.40	-8.96	-3.13	-0.20		
18.1	3415.	5000.	0.07	-8.33	-1.13	1.79		
23.4	4415.	6000.	-6.43	-6.50	-2.50	0.42		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4872

DATE 07/12/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	4.4	4.4	6.2	225.
0.5	76.	1661.	5.4	3.3	6.3	239.
1.0	193.	1778.	9.0	6.3	11.0	235.
1.5	270.	1855.	4.1	2.9	5.0	234.
2.0	365.	1950.	1.1	-1.9	2.1	330.
2.5	518.	2103.	3.0	-0.1	3.0	271.
3.0	703.	2288.	4.5	0.8	4.5	260.
3.5	881.	2466.	4.7	1.9	5.0	248.
4.0	1019.	2604.	4.1	3.3	5.3	231.
4.5	1153.	2738.	2.9	3.9	4.8	217.
5.0	1264.	2849.	3.1	3.1	4.4	224.
5.5	1340.	2925.	2.3	1.8	2.9	232.
6.0	1417.	3002.	2.6	2.0	3.3	232.
6.5	1497.	3082.	2.1	2.1	3.0	226.
7.0	1603.	3188.	3.6	3.5	5.0	225.
7.5	1696.	3281.	4.4	3.6	5.7	231.
8.0	1772.	3357.	3.6	3.8	5.2	223.
8.5	1854.	3439.	3.6	4.1	5.5	222.
9.0	1953.	3538.	4.5	4.9	6.7	222.
9.5	2032.	3617.	3.3	5.1	6.1	213.
10.0	2108.	3693.	2.5	6.1	6.7	203.
10.5	2184.	3769.	4.1	6.4	7.6	213.
11.0	2261.	3846.	3.5	5.8	6.7	211.
11.5	2337.	3922.	2.4	6.7	7.1	199.
12.0	2413.	3998.	2.9	7.1	7.7	202.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4873

DATE 07/14/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		12.09		0.0		1.5	90.
1.0	150	1735	16.55	4.45	1.42	4.35	2.1	327.
2.0	300	1885	16.73	0.18	0.0	2.93	4.6	267.
2.7	415.	2000.	16.64	-0.09	0.0	2.93	5.2	277.
3.3	500	2085	16.64	0.0	-0.35	2.57	3.5	283.
6.0	915.	2500.	15.01	-1.62	0.89	3.82	3.4	213.
9.3	1415.	3000.	13.74	-1.27	-1.62	1.31	5.4	216.
15.7	2415.	4000.	5.39	-8.35	-3.15	-0.22		
22.1	3415.	5000.	-2.73	-8.12	-3.05	-0.12		
27.6	4415.	6000.	-12.54	-9.81	-4.31	-1.38		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4873

DATE 07/14/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.5	-0.0	1.5	90.
0.5	76.	1661.	-0.1	0.0	0.1	103.
1.0	152.	1737.	1.0	-2.0	2.2	334.
1.5	229.	1814.	1.6	-0.5	1.7	287.
2.0	305.	1890.	4.7	0.4	4.8	266.
2.5	381.	1966.	5.5	-0.2	5.5	273.
3.0	457.	2042.	4.8	-1.0	4.9	282.
3.5	533.	2118.	2.4	-0.6	2.5	283.
4.0	610.	2195.	1.4	0.4	1.5	254.
4.5	686.	2271.	0.7	1.3	1.4	209.
5.0	762.	2347.	0.5	2.5	2.6	191.
5.5	838.	2423.	1.2	2.2	2.5	208.
6.0	914.	2499.	1.8	2.8	3.4	213.
6.5	991.	2576.	2.3	4.5	5.0	207.
7.0	1067.	2652.	3.2	6.7	7.4	206.
7.5	1143.	2728.	4.2	6.4	7.6	213.
8.0	1219.	2804.	4.6	5.5	7.2	220.
8.5	1295.	2880.	4.3	4.8	6.5	222.
9.0	1372.	2957.	3.3	4.5	5.6	217.
9.5	1448.	3033.	3.1	4.2	5.2	216.
10.0	1524.	3109.	3.6	3.9	5.3	222.
10.5	1600.	3185.	4.2	3.9	5.8	227.
11.0	1676.	3261.	5.0	4.5	6.7	228.
11.5	1753.	3338.	5.7	4.9	7.5	229.
12.0	1829.	3414.	5.5	4.9	7.3	228.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4869

DATE 07/14/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		32.97		0.0		6.2	135.
0.9	150	1735	31.17	-1.80	-1.96	0.97	3.6	132.
1.9	300	1885	30.33	-0.84	-0.33	2.60	6.4	144.
2.7	415.	2000.	29.67	0.0	-1.64	1.29	3.7	116.
3.2	500	2085	29.67	-0.67	-1.15	1.77	4.0	102.
5.9	915.	2500.	26.71	-2.95	-1.34	1.59	1.8	108.
9.2	1415.	3000.	27.22	0.50	0.50	3.43	12.4	119.
15.7	2415.	4000.	22.84	-4.38	-2.05	0.87		
21.2	3415.	5000.	13.29	-9.55	-3.05	-0.12		
26.0	4415.	6000.	2.56	-10.73	-5.24	-2.31		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 4869

DATE 07/14/77 TIME 13:52MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-4.4	4.4	6.2	135.
0.5	76.	1661.	-2.4	1.6	2.9	123.
1.0	160.	1745.	-2.7	2.5	3.7	133.
1.5	236.	1821.	-3.6	5.3	6.5	146.
2.0	312.	1897.	-3.8	5.1	6.4	143.
2.5	388.	1973.	-3.3	2.7	4.3	129.
3.0	464.	2049.	-2.7	0.0	2.7	90.
3.5	541.	2126.	-5.0	2.4	5.6	116.
4.0	617.	2202.	-4.3	1.8	4.6	113.
4.5	693.	2278.	-3.1	1.9	3.6	121.
5.0	769.	2354.	-1.8	1.9	2.6	137.
5.5	856.	2441.	-0.1	0.0	0.1	128.
6.0	932.	2517.	-2.2	0.5	2.3	102.
6.5	1008.	2593.	-3.9	3.4	5.2	131.
7.0	1084.	2669.	-4.0	5.4	6.7	143.
7.5	1161.	2746.	-6.9	6.4	9.4	133.
8.0	1237.	2822.	-7.1	6.2	9.4	131.
8.5	1313.	2898.	-8.3	5.0	9.7	121.
9.0	1389.	2974.	-12.3	5.8	13.6	115.
9.5	1465.	3050.	-8.0	6.0	10.0	127.
10.0	1542.	3127.	-12.8	9.8	16.2	128.
10.5	1618.	3203.	-9.9	6.8	12.0	125.
11.0	1694.	3279.	-6.9	9.9	12.1	145.
11.5	1770.	3355.	-6.5	12.9	14.4	153.
12.0	1846.	3431.	-4.3	11.0	11.8	159.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5117

DATE 07/16/77 TIME 04:59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.28		0.0		1.5	180.
1.0	150	1735	21.07	5.79	6.10	9.03	2.7	184.
1.0	* 152	1737	21.09		6.10	9.03		
2.0	300	1885	21.35	0.28	-0.52	2.41	5.2	179.
2.7	415.	2000.	21.09	-0.26	-0.52	2.41	6.6	183.
3.3	500	2085	20.83	-0.26	-1.39	1.54	8.8	185.
6.0	915.	2500.	18.43	-2.11	-2.10	0.83	12.0	213.
9.3	1415.	3000.	15.92	-2.79	-1.95	0.97	14.1	190.
15.8	2415.	4000.	11.08	-4.84	-1.82	1.11		
22.4	3415.	5000.	3.50	-7.58	-2.80	0.13		
28.5	4415.	6000.	-5.74	-9.24	-3.46	-0.53		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5117

DATE 07/16/77 TIME 04:59MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	1.5	1.5	180.
0.5	76.	1661.	-0.7	1.8	1.9	159.
1.0	152.	1737.	0.2	2.7	2.7	185.
1.5	229.	1814.	-0.0	3.6	3.6	179.
2.0	305.	1890.	-0.1	5.3	5.3	179.
2.5	381.	1966.	0.4	6.4	6.4	184.
3.0	457.	2042.	0.4	6.8	6.8	183.
3.5	533.	2118.	1.2	10.3	10.4	187.
4.0	610.	2195.	1.5	12.1	12.1	187.
4.5	686.	2271.	3.5	14.2	14.6	194.
5.0	762.	2347.	5.3	13.2	14.2	202.
5.5	838.	2423.	6.2	11.5	13.1	208.
6.0	914.	2499.	6.5	10.1	12.0	213.
6.5	991.	2576.	4.4	9.7	10.7	204.
7.0	1067.	2652.	5.1	10.8	11.9	205.
7.5	1143.	2728.	2.7	11.1	11.5	194.
8.0	1219.	2804.	2.5	12.7	12.9	191.
8.5	1295.	2880.	2.5	12.3	12.5	192.
9.0	1372.	2957.	2.5	12.8	13.0	191.
9.5	1448.	3033.	2.5	14.8	15.0	190.
10.0	1524.	3109.	2.5	14.1	14.3	190.
10.5	1600.	3185.	2.5	14.7	15.0	190.
11.0	1676.	3261.	2.5	13.6	13.8	190.
11.5	1753.	3338.	2.5	14.0	14.3	190.
12.0	1829.	3414.	2.5	12.4	12.7	191.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5124

DATE 07/16/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		32.38		0.0		7.7	180.
0.8	150	1735	29.67	-2.71	-2.62	0.31	11.0	211.
1.6	300	1885	28.68	-1.00	-2.31	0.62	7.1	202.
2.4	415.	2000.	27.66	-1.00	-2.48	0.45	5.6	218.
2.9	500	2085	27.16	-0.52	-2.49	0.43	3.9	209.
5.3	915.	2500.	22.71	-4.41	-6.14	-3.21	1.4	237.
6.8	1415.	3000.	17.70	-5.03	-6.13	-3.21	3.8	250.
12.0	2415.	4000.	9.90	-7.83	-2.36	0.57	7.0	258.
18.1	3415.	5000.	1.74	-8.15	-2.43	0.49		
24.3	4415.	6000.	-5.18	-6.93	-3.64	-0.71		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5124

DATE 07/16/77 TIME 13:54MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	7.7	7.7	180.
0.5	76.	1661.	3.8	6.6	7.6	210.
1.0	206.	1791.	7.1	11.5	13.5	212.
1.5	282.	1867.	2.4	6.9	7.3	199.
2.0	359.	1944.	3.2	5.8	6.6	209.
2.5	435.	2020.	3.4	4.0	5.2	221.
3.0	511.	2096.	1.7	3.2	3.7	208.
3.5	587.	2172.	-0.8	-1.3	1.5	30.
4.0	663.	2248.	1.1	2.6	2.8	203.
4.5	740.	2325.	1.1	2.2	2.4	207.
5.0	838.	2423.	2.4	1.2	2.6	243.
5.5	963.	2548.	0.5	0.4	0.7	234.
6.0	1124.	2709.	1.4	0.3	1.4	259.
6.5	1304.	2889.	4.2	1.8	4.6	247.
7.0	1479.	3064.	3.2	1.0	3.3	252.
7.5	1628.	3213.	6.9	1.0	7.0	262.
8.0	1765.	3350.	6.6	1.7	6.8	256.
8.5	1869.	3454.	5.5	0.8	5.6	261.
9.0	1961.	3546.	6.7	1.2	6.8	260.
9.5	2041.	3626.	6.7	1.5	6.9	257.
10.0	2117.	3702.	7.6	2.6	8.1	250.
10.5	2193.	3778.	7.8	3.5	8.6	246.
11.0	2270.	3855.	7.6	2.8	8.1	250.
11.5	2346.	3931.	6.5	2.2	6.9	251.
12.0	2422.	4007.	6.8	1.4	7.0	258.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5122

DATE 07/18/77 TIME 05:01MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		17.71		0.0		3.1	180.
1.0	150	1735	20.01	2.30	2.45	5.38	4.9	169.
1.0	* 152	1737	20.03		2.45	5.38		
2.0	300	1885	19.23	-0.78	-1.75	1.18	1.7	218.
2.7	415.	2000.	18.61	-0.62	-0.35	2.58	2.4	247.
3.3	500	2085	18.52	-0.09	-0.53	2.40	3.0	258.
6.0	915.	2500.	15.92	-2.06	-1.42	1.51	5.7	222.
9.3	1415.	3000.	14.20	-2.26	-0.54	2.39	9.2	233.
15.8	2415.	4000.	9.32	-4.87	-1.28	1.65		
22.2	3415.	5000.	1.98	-7.34	-2.44	0.49		
28.0	4415.	6000.	-6.33	-8.31	-2.89	0.04		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5122

DATE 07/18/77 TIME 05:01MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	3.1	3.1	180.
0.5	76.	1661.	-1.1	4.0	4.2	164.
1.0	152.	1737.	-0.9	4.9	5.0	169.
1.5	229.	1814.	0.4	1.9	1.9	191.
2.0	305.	1890.	1.1	1.3	1.7	220.
2.5	381.	1966.	1.7	1.0	2.0	240.
3.0	457.	2042.	2.7	0.7	2.8	255.
3.5	533.	2118.	3.1	0.5	3.2	261.
4.0	610.	2195.	3.4	0.2	3.4	266.
4.5	686.	2271.	3.5	-0.1	3.5	272.
5.0	762.	2347.	3.1	1.1	3.3	250.
5.5	838.	2423.	2.9	2.2	3.7	233.
6.0	914.	2499.	3.8	4.2	5.7	222.
6.5	991.	2576.	4.5	5.1	6.8	221.
7.0	1067.	2652.	5.5	5.8	8.0	223.
7.5	1143.	2728.	5.0	6.1	7.9	219.
8.0	1219.	2804.	5.1	6.6	8.3	218.
8.5	1295.	2880.	6.2	6.7	9.1	223.
9.0	1372.	2957.	7.3	6.0	9.4	231.
9.5	1448.	3033.	7.4	5.3	9.1	235.
10.0	1524.	3109.	5.7	5.8	8.1	224.
10.5	1600.	3185.	4.6	6.3	7.8	216.
11.0	1676.	3261.	4.2	6.5	7.7	213.
11.5	1753.	3338.	4.8	7.1	8.5	214.
12.0	1829.	3414.	4.6	7.8	9.1	210.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5120

DATE 07/20/77 TIME 05:04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		14.83		0.0		2.6	135.
1.0	150	1735	14.47	-0.36	-1.43	1.50	1.8	134.
2.0	300	1885	13.75	-0.73	-1.61	1.31	0.6	91.
2.7	415.	2000.	13.10	-0.55	-0.72	2.21	1.4	47.
3.3	500	2085	12.92	-0.27	-0.72	2.21	2.3	205.
6.0	915.	2500.	11.17	-1.55	-1.63	1.30	4.6	280.
9.3	1415.	3000.	10.53	-0.84	-1.82	1.11	2.7	279.
15.8	2415.	4000.	6.34	-4.20	0.0	2.93		
22.3	3415.	5000.	0.64	-5.69	-2.45	0.48		
28.9	4415.	6000.	-3.02	-3.67	-1.53	1.40		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5120

DATE 07/20/77 TIME 05:04MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	1.8	2.6	135.
0.5	76.	1661.	-0.4	2.1	2.1	169.
1.0	152.	1737.	-1.3	1.2	1.8	133.
1.5	229.	1814.	-1.2	0.7	1.4	122.
2.0	305.	1890.	-0.6	-0.0	0.6	89.
2.5	381.	1966.	-0.8	-0.5	1.0	59.
3.0	457.	2042.	-1.1	-1.7	2.0	33.
3.5	533.	2118.	0.9	-2.3	2.5	340.
4.0	610.	2195.	2.3	-2.6	3.5	319.
4.5	686.	2271.	3.3	-2.4	4.1	306.
5.0	762.	2347.	3.9	-1.9	4.3	295.
5.5	838.	2423.	4.4	-1.3	4.6	287.
6.0	914.	2499.	4.5	-0.8	4.6	280.
6.5	991.	2576.	4.2	0.0	4.2	270.
7.0	1067.	2652.	3.4	0.1	3.4	269.
7.5	1143.	2728.	2.5	0.9	2.7	250.
8.0	1219.	2804.	3.1	1.3	3.4	247.
8.5	1295.	2880.	2.6	0.8	2.7	254.
9.0	1372.	2957.	2.4	-0.3	2.4	278.
9.5	1448.	3033.	2.8	-0.5	2.9	280.
10.0	1524.	3109.	6.4	-2.6	7.0	292.
10.5	1600.	3185.	4.9	-3.2	5.9	303.
11.0	1676.	3261.	4.5	-2.4	5.1	298.
11.5	1753.	3338.	4.8	-0.5	4.8	276.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5118

DATE 07/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		26.54		0.0		4.6	45.
0.8	150	1735	23.73	-2.81	-3.42	-0.50	5.5	43.
1.5	300	1885	22.07	-1.66	-2.24	0.68	5.9	36.
2.3	415.	2000.	21.09	-0.96	-1.73	1.20	6.1	42.
2.9	500	2085	20.66	-0.45	-2.43	0.50	6.4	48.
5.5	915.	2500.	17.27	-3.39	-2.82	0.11	9.4	56.
8.8	1415.	3000.	13.83	-3.43	-2.15	0.77	5.4	55.
15.0	2415.	4000.	9.51	-4.32	-1.46	1.46		
21.3	3415.	5000.	3.51	-6.00	-0.93	1.99		
27.8	4415.	6000.	-3.21	-6.72	-1.72	1.21		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5118

DATE 07/20/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-3.3	-3.3	4.6	45.
0.5	76.	1661.	-3.5	-3.2	4.8	47.
1.0	208.	1793.	-3.9	-4.7	6.1	39.
1.5	293.	1878.	-3.4	-4.8	5.9	36.
2.0	369.	1954.	-3.5	-4.8	6.0	36.
2.5	445.	2030.	-4.4	-4.3	6.1	45.
3.0	521.	2106.	-4.9	-4.3	6.5	49.
3.5	597.	2182.	-4.4	-3.4	5.6	52.
4.0	674.	2259.	-4.3	-2.8	5.1	57.
4.5	750.	2335.	-3.5	-2.3	4.1	57.
5.0	826.	2411.	-4.6	-3.2	5.6	56.
5.5	915.	2500.	-7.9	-5.2	9.4	56.
6.0	992.	2577.	-8.0	-4.5	9.2	60.
6.5	1068.	2653.	-6.6	-3.2	7.4	64.
7.0	1144.	2729.	-7.6	-3.0	8.2	69.
7.5	1220.	2805.	-7.0	-3.6	7.9	63.
8.0	1296.	2881.	-3.9	-2.4	4.6	58.
8.5	1373.	2958.	-5.2	-2.9	6.0	61.
9.0	1449.	3034.	-3.7	-3.2	4.9	49.
9.5	1525.	3110.	-7.0	-6.2	9.4	49.
10.0	1601.	3186.	-10.5	-6.9	12.5	57.
10.5	1677.	3262.	-11.4	-7.7	13.8	56.
11.0	1754.	3339.	-13.5	-8.8	16.1	57.
11.5	1830.	3415.	-12.3	-8.5	14.9	55.
12.0	1906.	3491.	-7.3	-4.4	8.5	59.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5123

DATE 07/22/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		18.16		0.0		5.1	180.
1.0	150	1735	17.36	-0.80	-1.76	1.16	7.8	171.
2.0	300	1885	16.19	-1.16	-2.13	0.80	7.6	167.
2.7	415.	2000.	15.28	-0.64	-1.60	1.33	8.4	172.
3.3	500	2085	14.93	-0.63	-0.89	2.04	10.9	180.
6.0	915.	2500.	13.01	-1.71	-1.80	1.13	7.8	223.
9.3	1415.	3000.	11.82	-1.39	-2.35	0.57	4.2	220.
15.8	2415.	4000.	4.93	-6.90	-1.86	1.07		
22.4	3415.	5000.	0.64	-4.29	-1.51	1.42		
28.9	4415.	6000.	-5.45	-6.09	-1.34	1.58		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5123

DATE 07/22/77 TIME 05:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	5.1	5.1	180.
0.5	76.	1661.	-0.5	5.0	5.0	174.
1.0	152.	1737.	-1.3	7.8	7.9	171.
1.5	229.	1814.	-1.6	7.4	7.6	168.
2.0	305.	1890.	-1.7	7.4	7.6	167.
2.5	381.	1966.	-1.5	8.3	8.4	170.
3.0	457.	2042.	-0.9	8.3	8.3	174.
3.5	533.	2118.	1.0	12.9	13.0	184.
4.0	610.	2195.	3.5	7.3	8.1	206.
4.5	686.	2271.	4.3	10.9	11.7	202.
5.0	762.	2347.	5.9	8.6	10.4	214.
5.5	838.	2423.	5.5	6.7	8.7	220.
6.0	914.	2499.	5.3	5.7	7.8	223.
6.5	991.	2576.	5.0	6.0	7.8	220.
7.0	1067.	2652.	4.7	5.8	7.4	219.
7.5	1143.	2728.	3.6	5.8	6.8	212.
8.0	1219.	2804.	3.8	5.6	6.7	214.
8.5	1295.	2880.	3.5	3.9	5.2	222.
9.0	1372.	2957.	3.1	3.7	4.8	220.
9.5	1448.	3033.	2.5	2.9	3.8	221.
10.0	1524.	3109.	2.0	2.8	3.4	215.
10.5	1600.	3185.	1.7	1.9	2.5	222.
11.0	1678.	3263.	2.2	2.4	3.3	223.
11.5	1754.	3339.	2.6	1.9	3.3	234.
12.0	1830.	3415.	3.2	2.3	3.9	233.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5121

DATE 07/22/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		27.14		0.0		5.1	180.
1.0	150	1735	25.60	-1.54	-2.20	0.73	4.3	189.
2.0	300	1885	25.26	-0.34	0.34	3.27	8.2	185.
2.7	415.	2000.	24.83	-0.26	-0.34	2.59	14.5	185.
3.3	500	2085	24.58	-0.42	-1.19	1.74	18.5	184.
6.0	915.	2500.	23.97	-0.61	-0.68	2.25	M	M
8.9	1415.	3000.	20.21	-3.76	-2.96	-0.03	M	M
14.5	2415.	4000.	12.01	-8.20	-0.36	2.57		
20.9	3415.	5000.	5.87	-6.14	-2.78	0.15		
27.3	4415.	6000.	-0.32	-6.18	-1.89	1.03		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5121

DATE 07/22/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	5.1	5.1	180.
0.5	76.	1661.	2.3	4.4	5.0	207.
1.0	153.	1738.	0.6	4.2	4.3	188.
1.5	229.	1814.	-0.5	4.1	4.1	173.
2.0	305.	1890.	0.8	8.4	8.5	186.
2.5	381.	1966.	1.1	12.7	12.8	185.
3.0	457.	2042.	1.2	16.6	16.7	184.
3.5	534.	2119.	1.3	20.0	20.0	184.
4.0	610.	2195.	-0.2	18.7	18.7	179.
4.5	686.	2271.	-5.0	17.4	18.2	164.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5119

DATE 07/24/77 TIME 05:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.74		0.0		1.5	180.
1.0	150	1735	15.74	0.0	-0.36	2.57	M	M
2.0	300	1885	15.11	-0.63	-1.43	1.50	M	M
2.7	415.	2000.	14.56	-0.55	-1.79	1.14	M	M
3.3	500	2085	14.20	-0.37	-0.54	2.39	M	M
6.0	915.	2500.	13.74	-0.46	0.0	2.93	M	M
9.3	1415.	3000.	11.37	-2.37	-2.17	0.75	M	M
15.8	2415.	4000.	4.64	-6.73	-0.93	2.00		
22.4	3415.	5000.	-0.89	-5.53	-1.71	1.22		
28.9	4415.	6000.	-8.20	-7.30	-1.55	1.38		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5119

DATE 07/24/77 TIME 05:05MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-0.0	1.5	1.5	180.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5112

DATE 07/24/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		22.84		0.0		7.7	270.
1.0	150	1735	22.14	-0.70	-1.20	1.72	7.5	268.
2.0	300	1885	21.79	-0.35	-1.90	1.03	4.1	259.
2.7	415.	2000.	20.73	-0.79	-2.08	0.85	2.9	271.
3.3	500	2085	20.04	-0.96	-1.74	1.19	2.6	288.
6.0	915.	2500.	17.36	-2.32	-2.47	0.46	1.1	325.
9.0	1415.	3000.	13.28	-4.43	0.0	2.93	M	M
15.5	2415.	4000.	11.36	-1.93	-0.54	2.38		
21.7	3415.	5000.	7.74	-3.62	0.55	3.48		
28.3	4415.	6000.	10.99	3.25	0.18	3.11		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5112

DATE 07/24/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	7.7	0.0	7.7	270.
0.5	76.	1661.	6.8	0.2	6.8	269.
1.0	152.	1737.	7.5	0.3	7.6	268.
1.5	229.	1814.	6.5	0.7	6.5	264.
2.0	305.	1890.	3.9	0.8	4.0	258.
2.5	381.	1966.	3.0	0.2	3.0	266.
3.0	457.	2042.	2.9	-0.4	2.9	278.
3.5	533.	2118.	2.2	-1.0	2.4	295.
4.0	610.	2195.	1.8	-1.5	2.3	310.
4.5	686.	2271.	1.4	-1.7	2.3	320.
5.0	762.	2347.	0.2	-1.9	1.9	353.
5.5	838.	2423.	0.5	-1.4	1.5	340.
6.0	914.	2499.	0.6	-0.9	1.1	325.
6.5	991.	2576.	0.7	-0.6	1.0	311.
7.0	1074.	2659.	0.1	-0.2	0.2	336.
7.5	1159.	2744.	0.5	0.3	0.6	244.
8.0	1250.	2835.	1.0	1.5	1.8	215.
8.5	1343.	2928.	2.3	2.0	3.1	230.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5114

DATE 07/26/77 TIME 05:06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		12.46		0.0		2.6	135.
1.0	150	1735	14.28	1.82	4.47	7.40	0.9	122.
2.0	300	1885	15.73	1.45	1.24	4.17	1.5	156.
2.7	415.	2000.	15.83	0.19	-0.71	2.22	1.3	78.
3.3	500	2085	15.74	-0.18	-0.36	2.57	1.3	59.
6.0	915.	2500.	15.65	0.01	-1.25	1.68	0.9	162.
9.3	1415.	3000.	13.47	-2.27	-1.62	1.31	1.2	168.
15.8	2415.	4000.	7.27	-6.20	-2.77	0.16		
22.4	3415.	5000.	-0.22	-7.50	-1.32	1.60		
28.5	4415.	6000.	-7.51	-7.28	-1.93	1.00		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5114

DATE 07/26/77 TIME 05:06MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-1.8	1.8	2.6	135.
0.5	76.	1661.	-1.3	3.6	3.8	160.
1.0	152.	1737.	-0.7	0.4	0.8	121.
1.5	229.	1814.	-0.4	1.5	1.6	164.
2.0	305.	1890.	-0.6	1.4	1.5	156.
2.5	381.	1966.	-1.0	0.0	1.0	92.
3.0	457.	2042.	-1.3	-0.7	1.5	61.
3.5	533.	2118.	-0.9	-0.6	1.1	58.
4.0	610.	2195.	-1.3	-1.0	1.7	53.
4.5	686.	2271.	-1.7	-0.6	1.8	71.
5.0	762.	2347.	-1.0	-0.3	1.1	72.
5.5	838.	2423.	-0.2	0.7	0.7	165.
6.0	914.	2499.	-0.3	0.9	0.9	162.
6.5	991.	2576.	0.1	0.4	0.4	194.
7.0	1067.	2652.	-0.0	1.2	1.2	178.
7.5	1143.	2728.	-0.8	1.8	2.0	157.
8.0	1219.	2804.	-1.2	2.2	2.5	151.
8.5	1295.	2880.	-0.6	1.7	1.8	159.
9.0	1372.	2957.	-0.2	1.5	1.5	171.
9.5	1448.	3033.	-0.3	1.0	1.0	165.
10.0	1524.	3109.	-0.6	1.2	1.3	155.
10.5	1600.	3185.	-0.6	1.6	1.8	160.
11.0	1676.	3261.	-1.0	1.7	2.0	149.
11.5	1753.	3338.	-1.7	1.5	2.3	131.
12.0	1829.	3414.	-1.4	1.6	2.1	140.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5116

DATE 07/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		31.33		0.0		5.1	270.
0.8	150	1735	28.53	-2.80	-3.99	-1.06	4.6	279.
1.4	300	1885	27.19	-1.33	-4.52	-1.59	4.0	286.
1.9	415.	2000.	25.77	-1.36	-5.22	-2.30	4.0	285.
2.2	500	2085	25.27	-0.56	-5.10	-2.17	4.2	277.
4.0	915.	2500.	20.29	-4.18	-5.05	-2.12	3.1	296.
6.0	1415.	3000.	14.83	-5.76	-6.43	-3.50	3.8	283.
10.8	2415.	4000.	7.46	-7.88	-2.40	0.53	3.4	236.
17.0	3415.	5000.	-1.28	-8.74	-1.90	1.03		
22.2	4415.	6000.	-9.97	-8.69	-1.36	1.57		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5116

DATE 07/26/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	5.1	0.0	5.1	270.
0.5	76.	1661.	3.6	-0.4	3.6	276.
1.0	223.	1808.	5.4	-1.2	5.5	282.
1.5	322.	1907.	3.4	-1.0	3.5	287.
2.0	445.	2030.	4.0	-1.0	4.1	284.
2.5	578.	2163.	4.4	0.2	4.4	267.
3.0	704.	2289.	4.2	0.7	4.2	261.
3.5	815.	2400.	3.0	0.4	3.0	263.
4.0	906.	2491.	2.7	-1.4	3.1	298.
4.5	1012.	2597.	3.8	-0.5	3.8	277.
5.0	1143.	2728.	4.4	0.5	4.4	264.
5.5	1278.	2863.	4.4	-0.0	4.4	271.
6.0	1413.	2998.	3.7	-0.8	3.8	283.
6.5	1546.	3131.	3.1	-1.4	3.4	294.
7.0	1696.	3281.	2.5	-1.0	2.7	293.
7.5	1826.	3411.	2.3	-1.6	2.8	305.
8.0	1923.	3508.	0.6	-0.9	1.1	327.
8.5	2008.	3593.	0.4	-0.2	0.5	292.
9.0	2100.	3685.	3.1	-1.2	3.3	291.
9.5	2203.	3788.	3.2	-0.1	3.2	272.
10.0	2287.	3872.	2.9	1.2	3.1	247.
10.5	2363.	3948.	2.7	1.8	3.2	237.
11.0	2440.	4025.	2.9	2.0	3.5	235.
11.5	2525.	4110.	3.9	2.7	4.8	236.
12.0	2612.	4197.	5.1	3.8	6.4	233.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5109

DATE 07/28/77 TIME 05:09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		11.45		0.0		4.1	135.
1.0	150.	1735	12.92	1.47	0.90	3.83	3.3	142.
1.3	* 190	1775	13.01		-0.36	2.57		
2.0	300	1885	12.55	-0.36	-0.90	2.03	1.0	169.
2.7	415.	2000.	12.46	-0.09	0.18	3.11	1.4	191.
3.3	500	2085	12.54	0.08	0.72	3.65	2.5	232.
6.0	915.	?2500.	11.64	-0.90	-1.27	1.66	1.5	292.
9.3	1415.	3000.	9.32	-2.31	-1.28	1.65	4.3	204.
15.8	2415.	4000.	2.18	-7.15	-2.63	0.30		
21.9	3415.	5000.	-6.04	-8.21	-3.27	-0.34		
28.0	4415.	6000.	-12.95	-6.91	-1.37	1.56		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5109

DATE 07/28/77 TIME 05:09MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	-2.9	2.9	4.1	135.
0.5	76.	1661.	-1.6	3.4	3.8	155.
1.0	152.	1737.	-2.0	2.6	3.3	142.
1.5	229.	1814.	-0.8	1.1	1.4	143.
2.0	305.	1890.	-0.2	1.0	1.0	170.
2.5	381.	1966.	-0.1	0.8	0.8	176.
3.0	457.	2042.	1.0	1.8	2.1	209.
3.5	533.	2118.	2.7	1.0	2.9	250.
4.0	610.	2195.	3.0	-1.6	3.4	299.
4.5	686.	2271.	3.0	-1.6	3.4	298.
5.0	762.	2347.	2.8	-1.7	3.3	301.
5.5	838.	2423.	2.0	-0.7	2.1	290.
6.0	914.	2499.	1.4	-0.6	1.5	292.
6.5	991.	2576.	1.2	-0.1	1.3	277.
7.0	1067.	2652.	0.9	0.9	1.3	228.
7.5	1143.	2728.	0.5	1.4	1.5	200.
8.0	1219.	2804.	0.6	1.4	1.5	204.
8.5	1295.	2880.	1.5	2.1	2.6	216.
9.0	1372.	2957.	1.5	3.7	4.0	202.
9.5	1448.	3033.	1.9	4.1	4.6	205.
10.0	1524.	3109.	2.9	3.1	4.3	224.
10.5	1600.	3185.	4.6	2.3	5.1	244.
11.0	1676.	3261.	5.2	2.7	5.8	242.
11.5	1753.	3338.	6.0	2.7	6.6	246.
12.0	1829.	3414.	6.1	2.8	6.7	246.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5111

DATE 07/28/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		27.99		0.0		2.1	270.
0.8	150	1735	25.52	-2.46	-5.57	-2.64	2.5	279.
1.3	300	1885	24.17	-1.36	-4.43	-1.50	2.3	292.
1.8	415.	2000.	22.75	-1.35	-5.14	-2.22	1.9	310.
2.2	500	2085	22.16	-0.65	-1.89	1.04	2.5	305.
4.5	915.	2500.	18.87	-3.28	-2.45	0.48	3.3	273.
7.6	1415.	3000.	13.83	-4.68	-0.36	2.57	2.2	277.
14.1	2415.	4000.	7.65	-6.55	-2.94	-0.01		
20.7	3415.	5000.	1.22	-6.43	-2.26	0.67		
26.4	4415.	6000.	-7.11	-8.33.	-1.16	1.77		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5111

DATE 07/28/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	2.1	0.0	2.1	270.
0.5	76.	1661.	2.1	-0.2	2.1	276.
1.0	219.	1804.	2.8	-0.6	2.8	282.
1.5	340.	1925.	1.9	-1.0	2.1	297.
2.0	452.	2037.	1.3	-1.3	1.8	316.
2.5	570.	2155.	3.2	-1.1	3.4	289.
3.0	646.	2231.	3.0	-0.7	3.0	283.
3.5	723.	2308.	2.2	-0.8	2.3	289.
4.0	837.	2422.	2.3	-1.2	2.6	297.
4.5	919.	2504.	3.3	-0.1	3.3	272.
5.0	997.	2582.	1.7	-0.5	1.8	286.
5.5	1074.	2659.	1.4	0.1	1.4	265.
6.0	1157.	2742.	0.8	1.0	1.3	218.
6.5	1242.	2827.	1.3	-0.8	1.5	301.
7.0	1318.	2903.	0.9	-0.1	1.0	278.
7.5	1394.	2979.	1.7	-0.3	1.7	279.
8.0	1471.	3056.	3.5	-0.1	3.5	271.
8.5	1547.	3132.	4.4	-0.2	4.4	273.
9.0	1623.	3208.	3.8	-0.8	3.8	283.
9.5	1699.	3284.	3.9	-1.2	4.1	287.
10.0	1775.	3360.	4.4	-1.3	4.6	287.
10.5	1852.	3437.	4.0	-2.0	4.4	296.
11.0	1928.	3513.	4.3	-1.6	4.6	290.
11.5	2004.	3589.	5.4	-1.8	5.7	289.
12.0	2080.	3665.	5.7	-2.6	6.3	295.

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5113

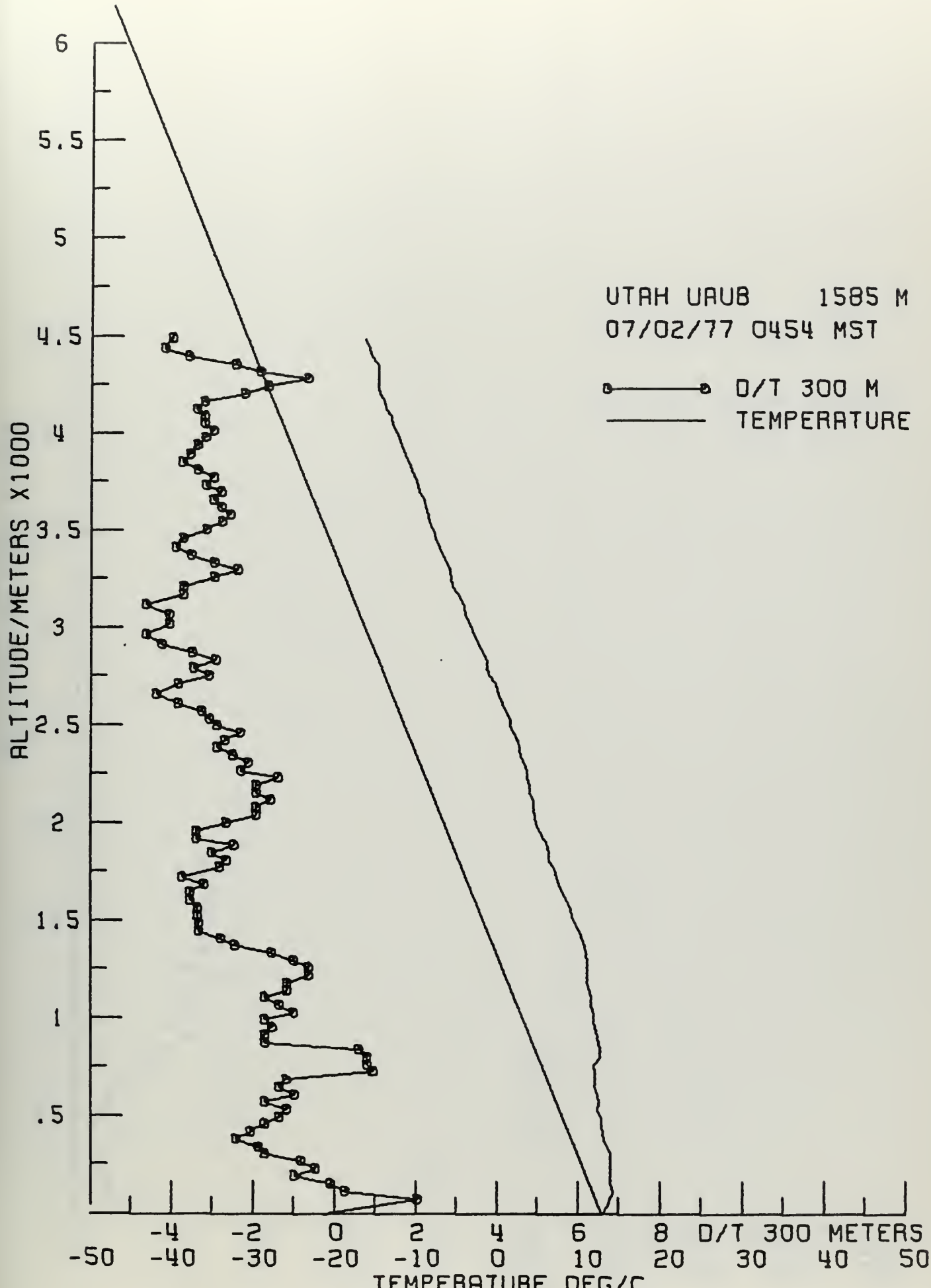
DATE 07/30/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		30.50		0.0		7.7	270.
0.8	150	1735	27.36	-3.14	-2.84	0.08	5.7	276.
1.5	300	1885	26.22	-1.14	-3.38	-0.45	6.6	268.
2.2	415.	2000.	24.66	-1.29	-3.56	-0.63	6.1	283.
2.7	500	2085	24.40	-0.52	-3.58	-0.65	5.1	282.
4.5	915.	2500.	18.70	-4.86	-4.55	-1.62	5.8	285.
6.5	1415.	3000.	15.19	-4.35	-5.35	-2.42	8.7	279.
10.9	2415.	4000.	5.39	-9.80	-2.04	0.89	8.7	265.
17.2	3415.	5000.	-2.15	-7.54	-2.28	0.65		
23.7	4415.	6000.	-9.97	-7.82	-1.56	1.37		

UTAH UAUB ELEV 1585 METERS SOUNDING ID 5113

DATE 07/30/77 TIME 13:50MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	1585.	7.7	0.0	7.7	270.
0.5	76.	1661.	2.7	-0.4	2.7	279.
1.0	224.	1809.	8.8	-0.5	8.8	273.
1.5	300.	1885.	6.6	0.2	6.6	268.
2.0	379.	1964.	5.6	-1.5	5.8	285.
2.5	467.	2052.	6.4	-1.2	6.5	281.
3.0	550.	2135.	2.9	-0.7	3.0	284.
3.5	643.	2228.	4.0	-1.6	4.3	291.
4.0	772.	2357.	6.2	-1.7	6.5	285.
4.5	913.	2498.	5.6	-1.5	5.8	285.
5.0	1039.	2624.	5.8	-2.5	6.4	294.
5.5	1166.	2751.	6.4	-1.8	6.6	286.
6.0	1287.	2872.	6.6	-1.4	6.7	282.
6.5	1415.	3000.	8.6	-1.3	8.7	279.
7.0	1556.	3141.	7.7	-1.0	7.8	277.
7.5	1677.	3262.	7.5	-0.3	7.5	273.
8.0	1777.	3362.	5.5	-0.9	5.6	279.
8.5	1895.	3480.	6.0	-0.9	6.1	279.
9.0	2015.	3600.	6.9	-1.5	7.1	282.
9.5	2153.	3738.	9.0	-0.8	9.1	275.
10.0	2265.	3850.	11.1	-0.4	11.1	272.
10.5	2352.	3937.	9.2	-0.0	9.2	270.
11.0	2430.	4015.	8.6	1.0	8.6	263.
11.5	2506.	4091.	8.9	2.1	9.2	257.
12.0	2589.	4174.	8.4	3.4	9.1	248.


UTAH UAUB 1585 M
07/02/77 0454 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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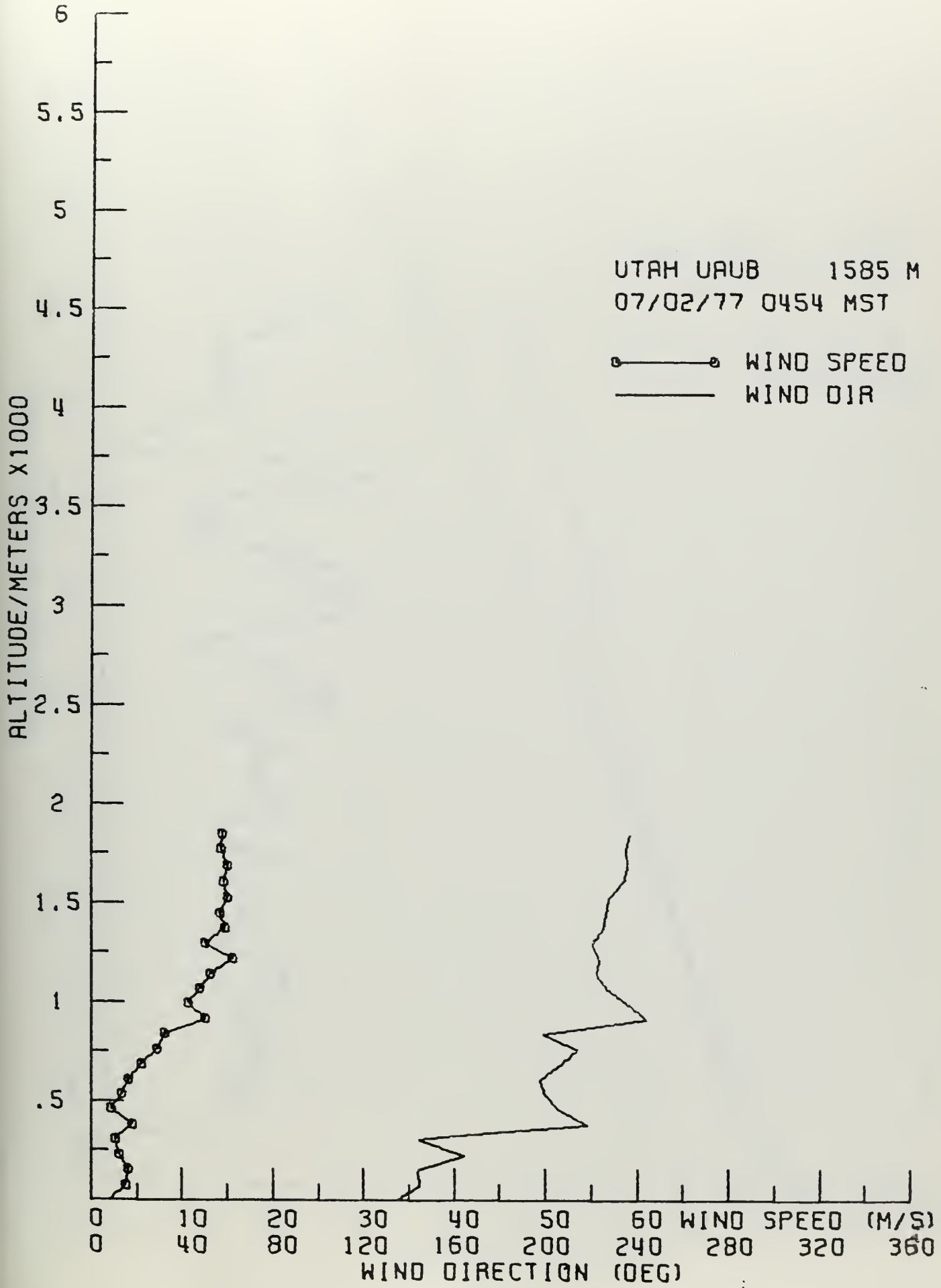
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
D/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C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07/02/77 0454 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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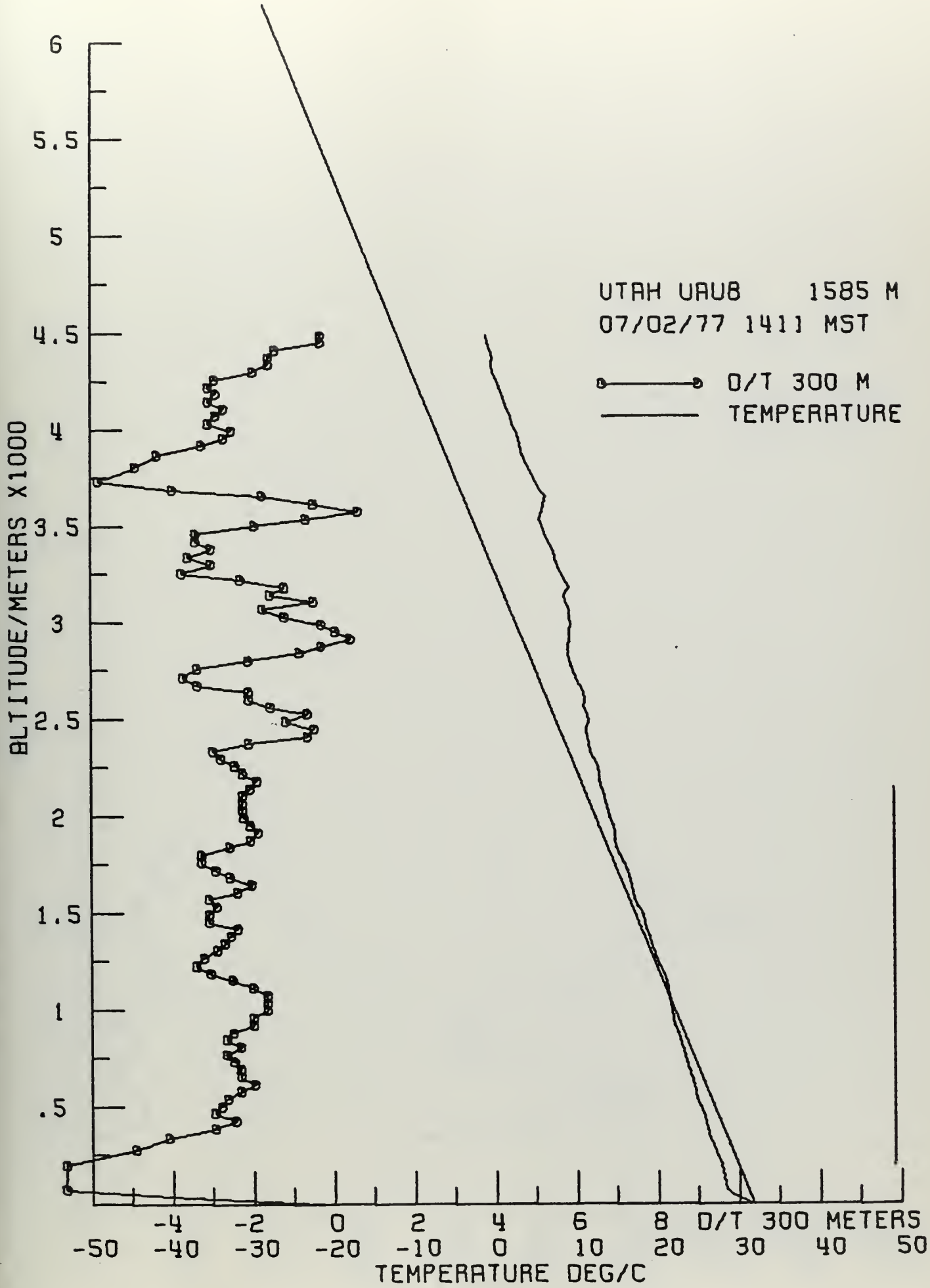
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)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07/02/77 1411 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4.5
4
3.5
3
2.5
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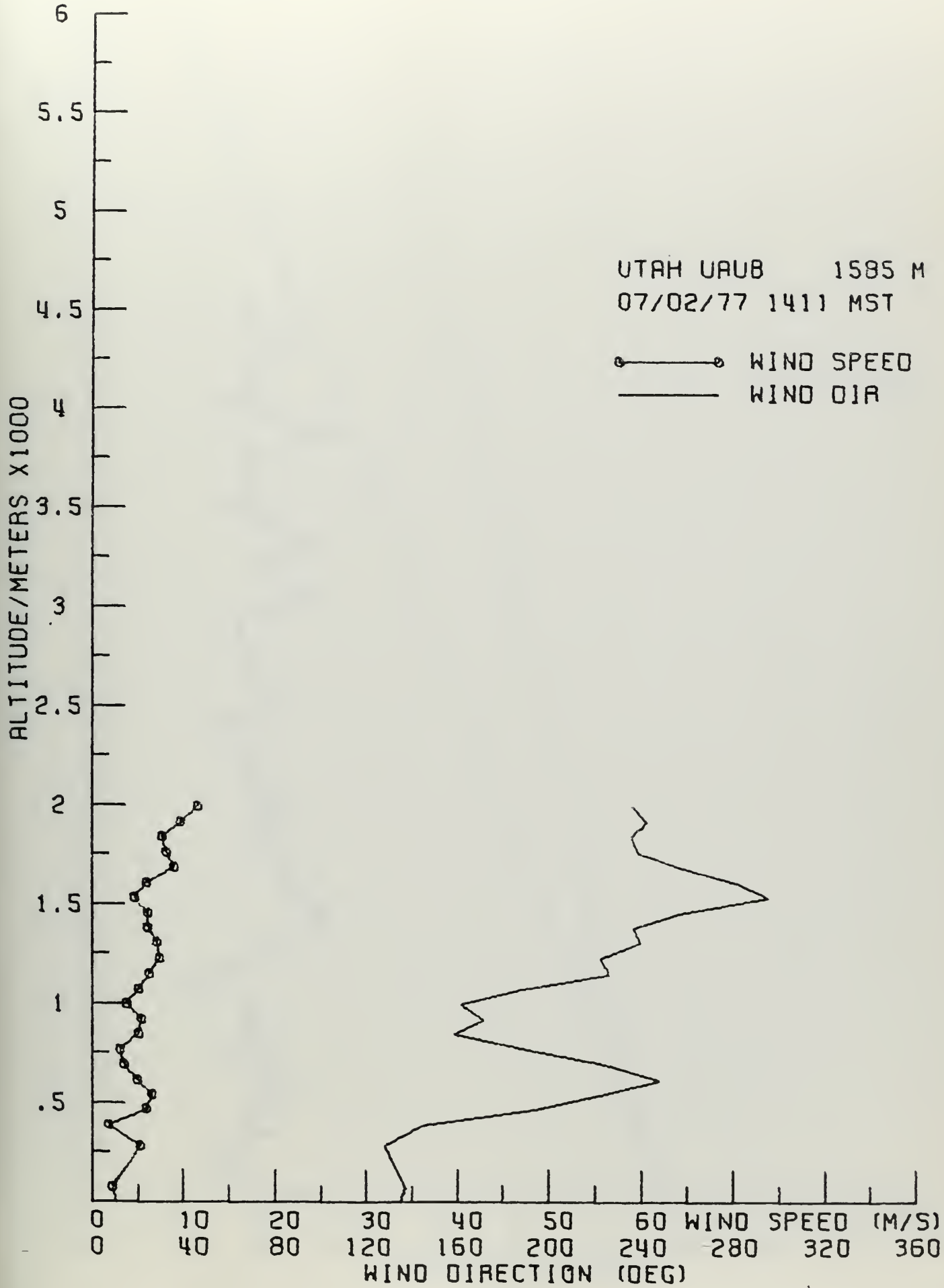
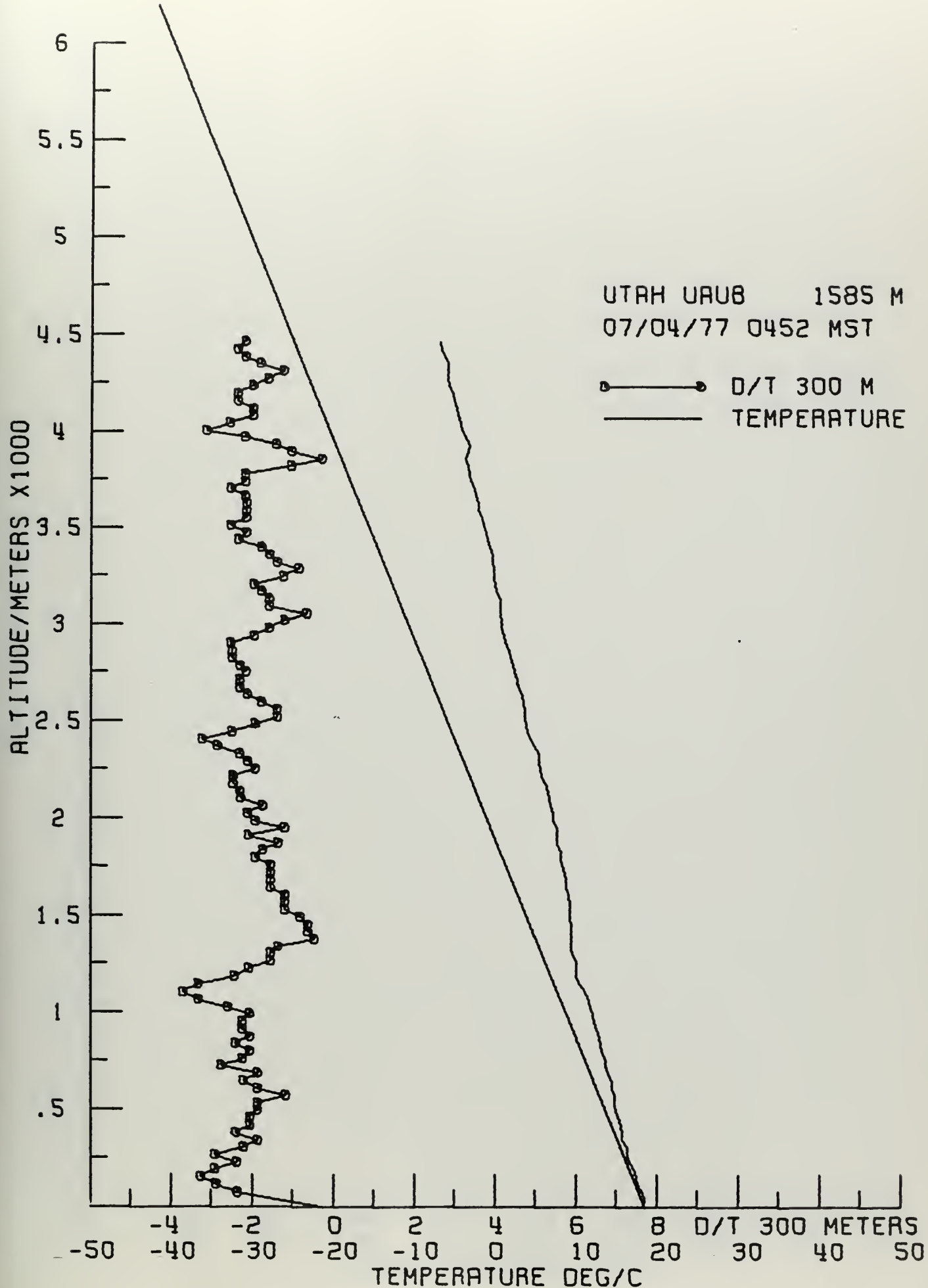
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/02/77 1411 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)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07/04/77 0452 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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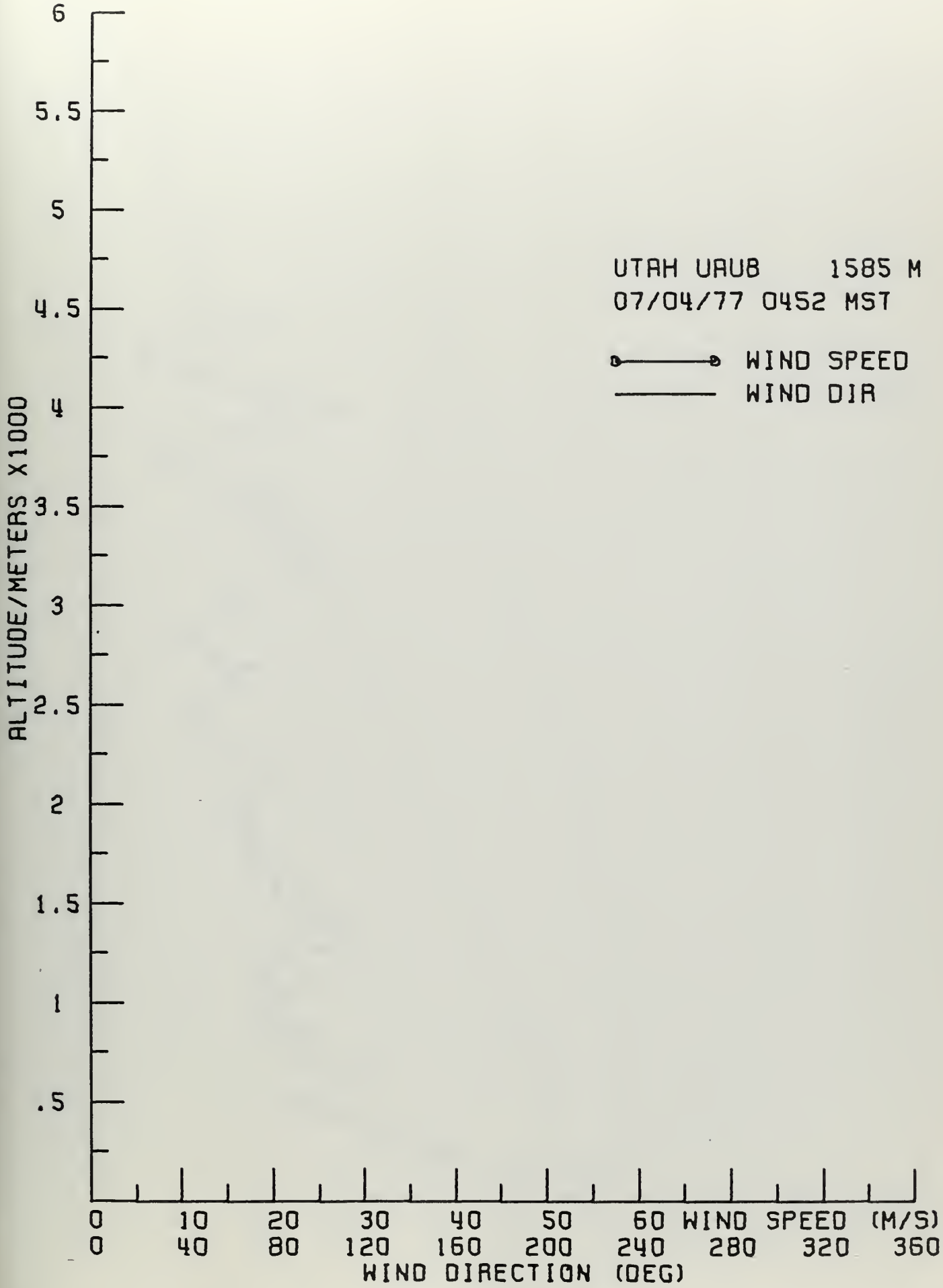
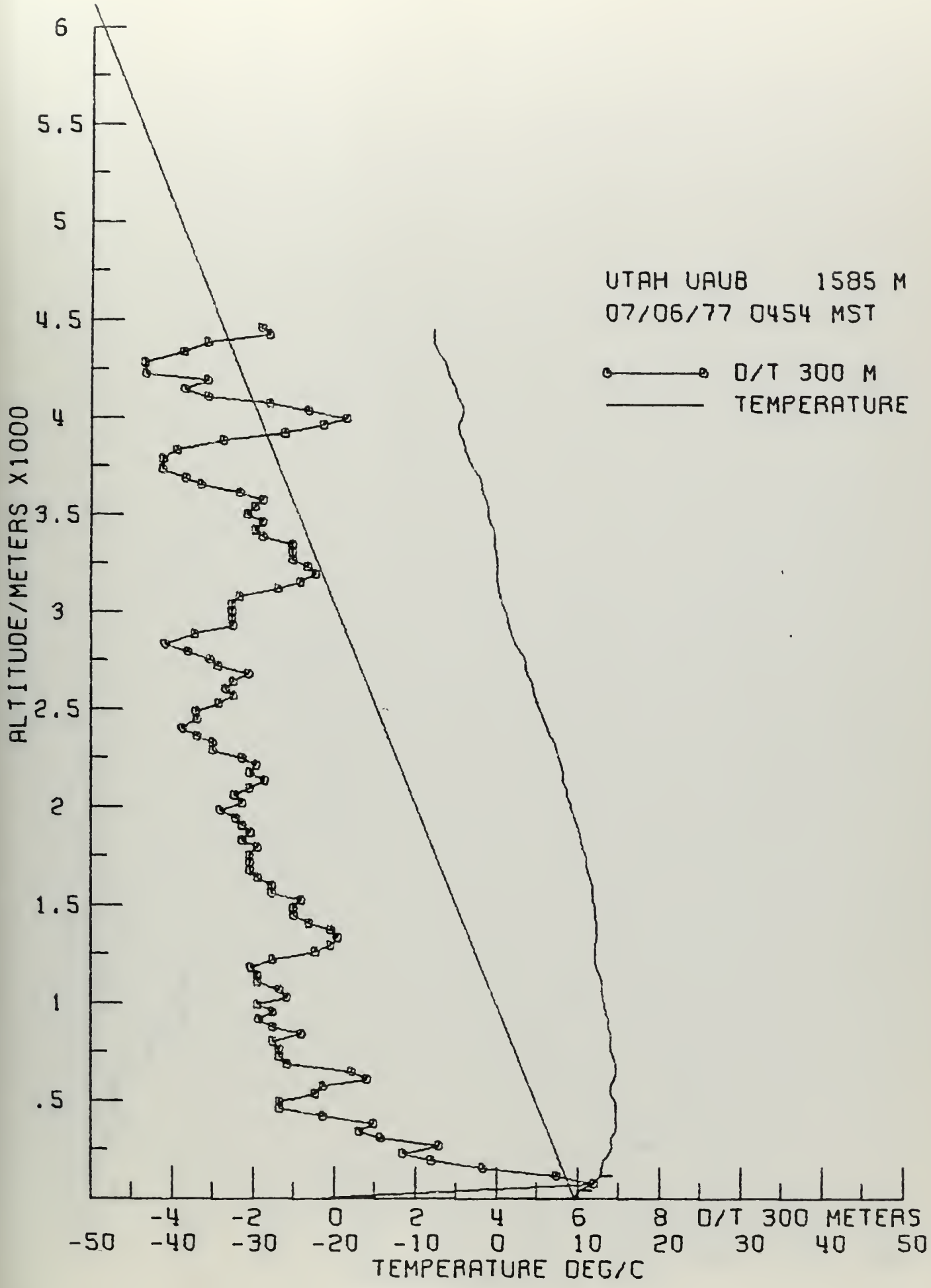
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/04/77 0452 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/06/77 0454 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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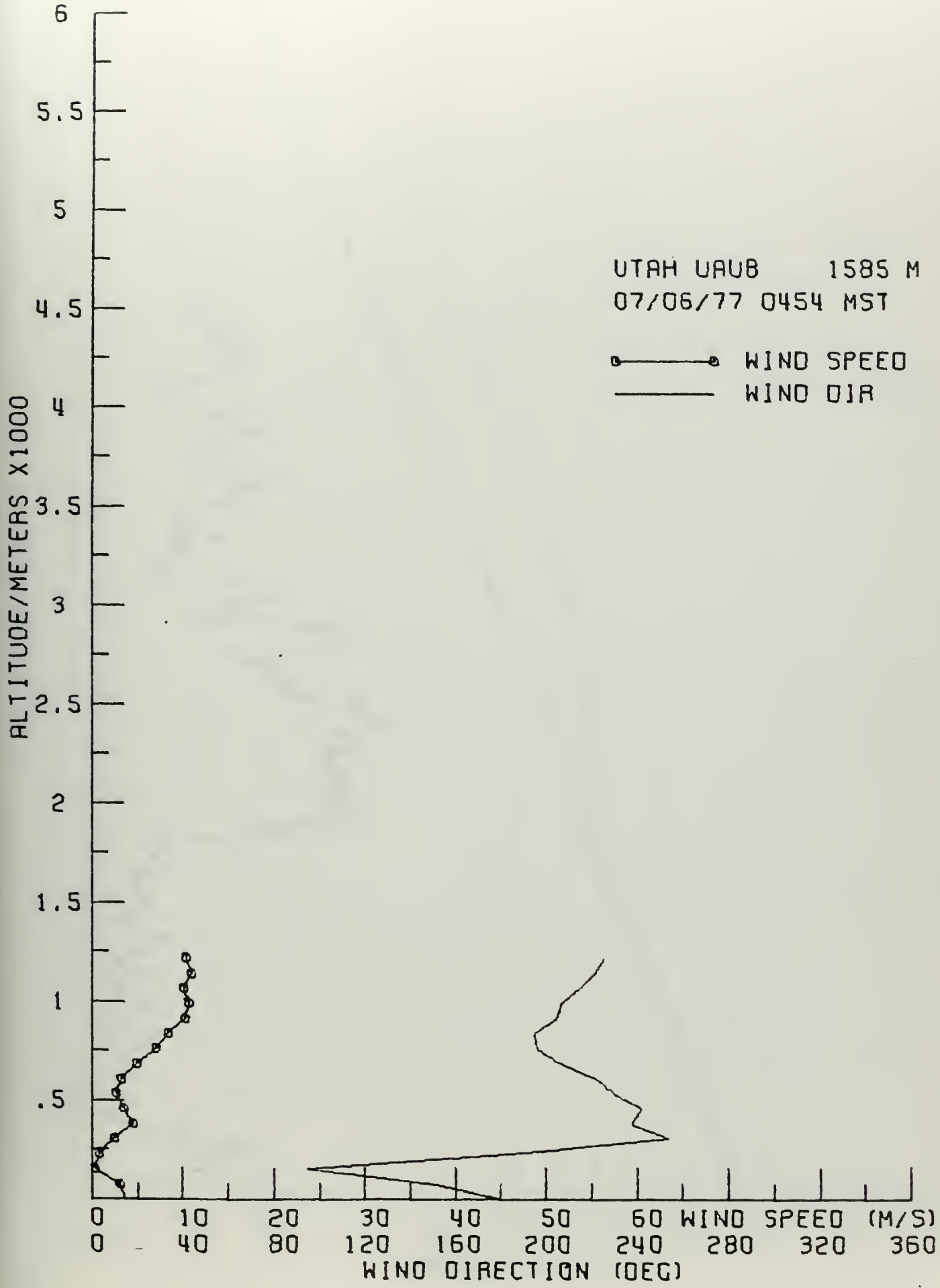
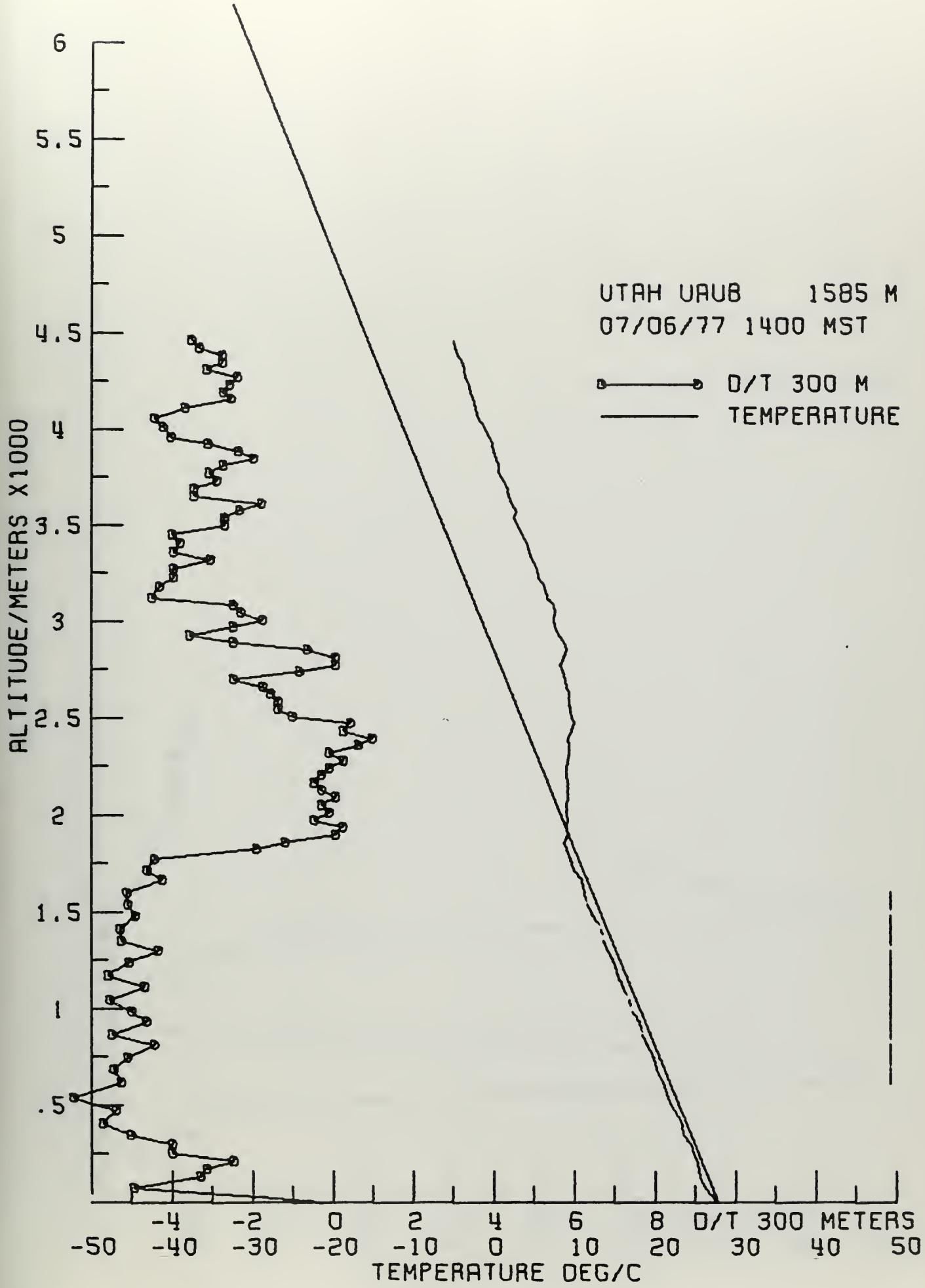
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/06/77 0454 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/06/77 1400 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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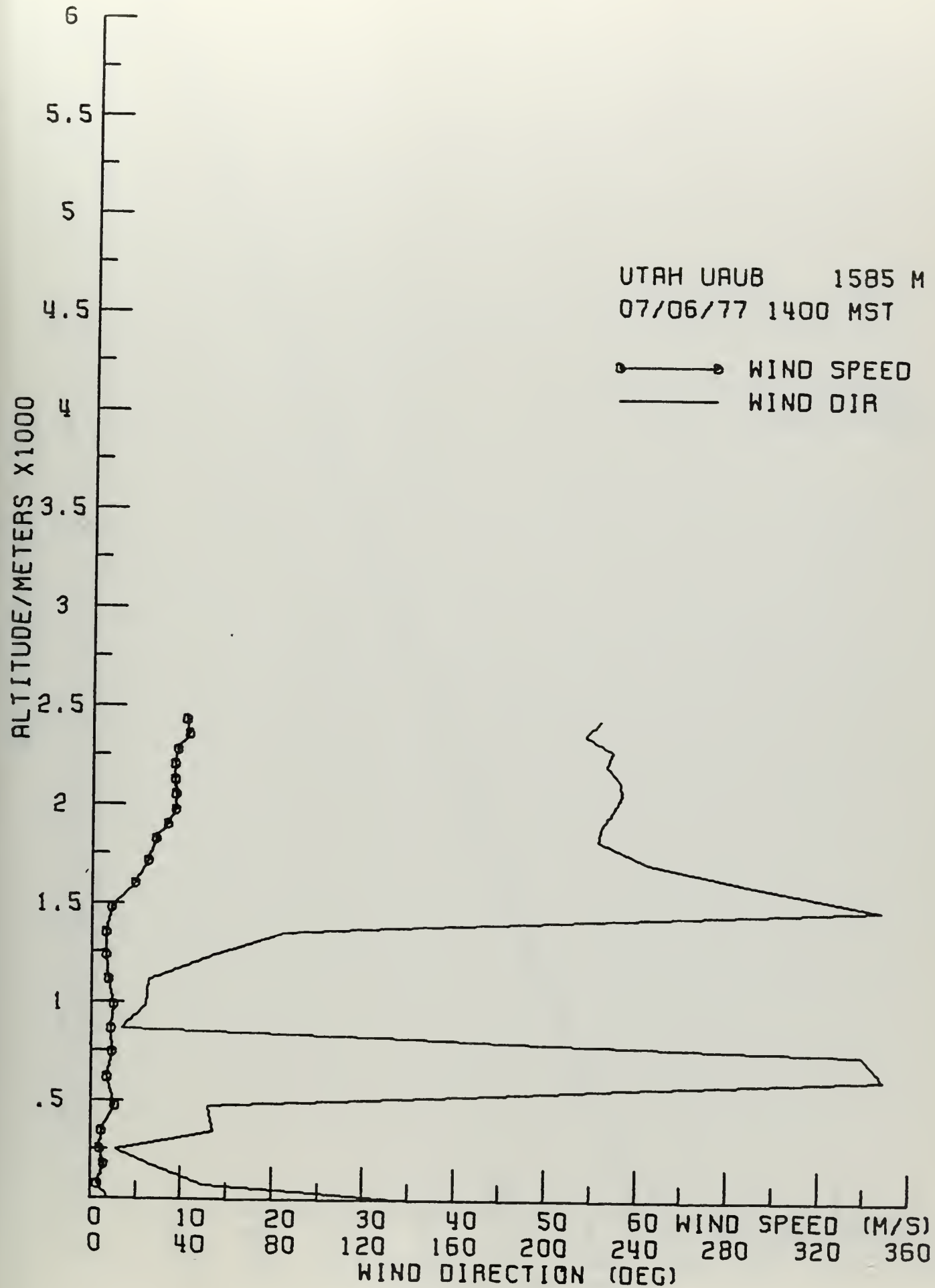
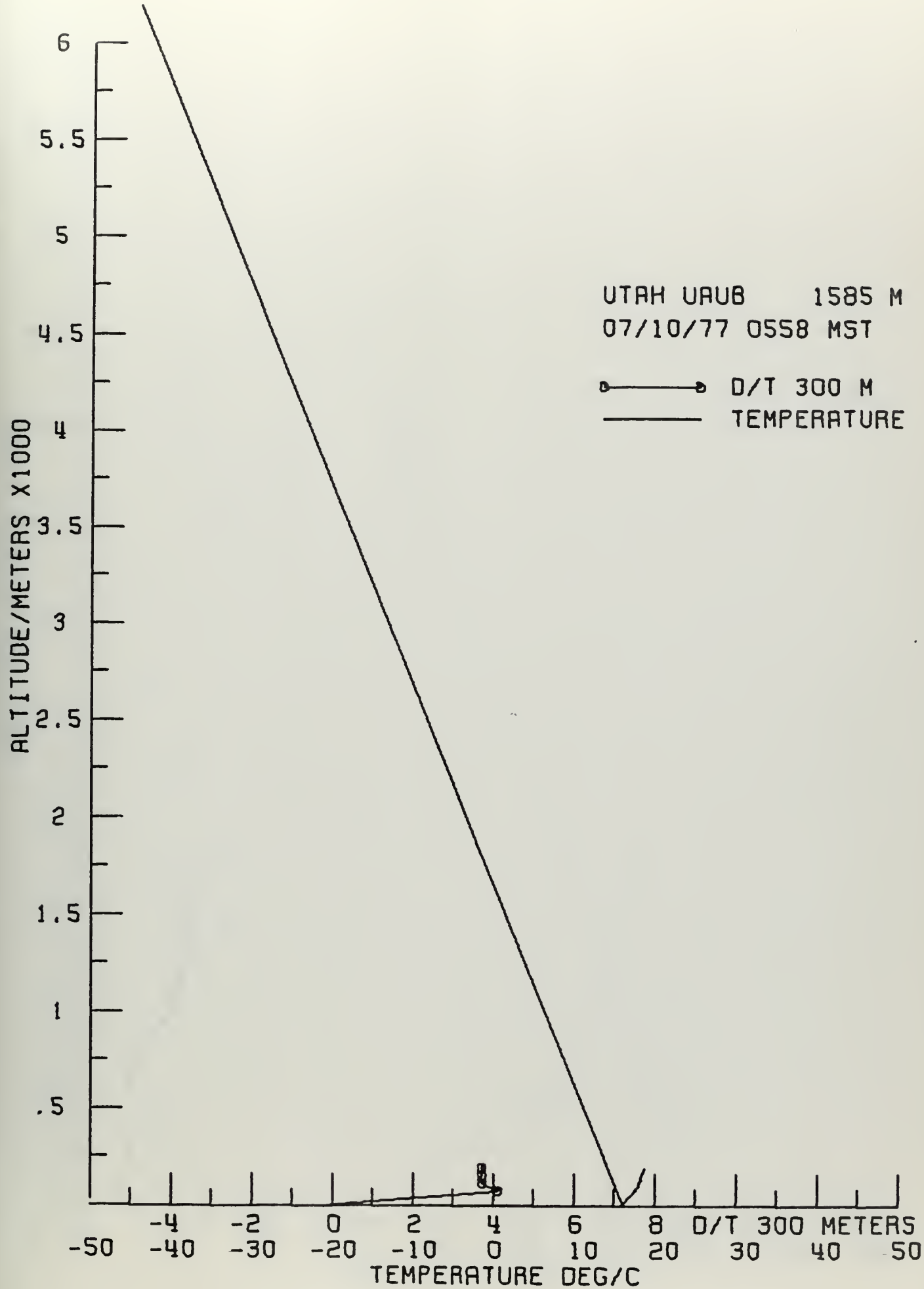
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/06/77 1400 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)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07/10/77 0558 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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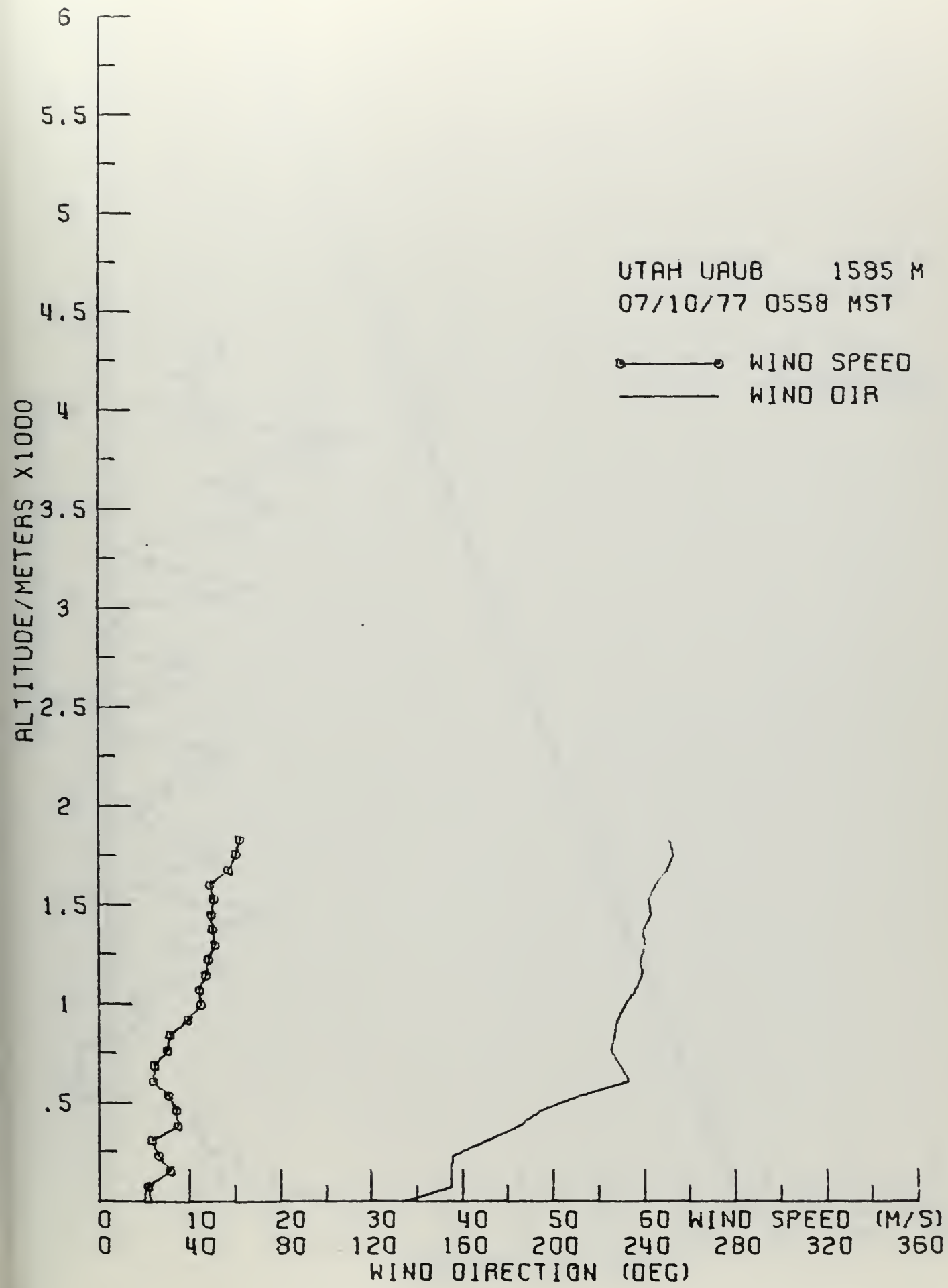
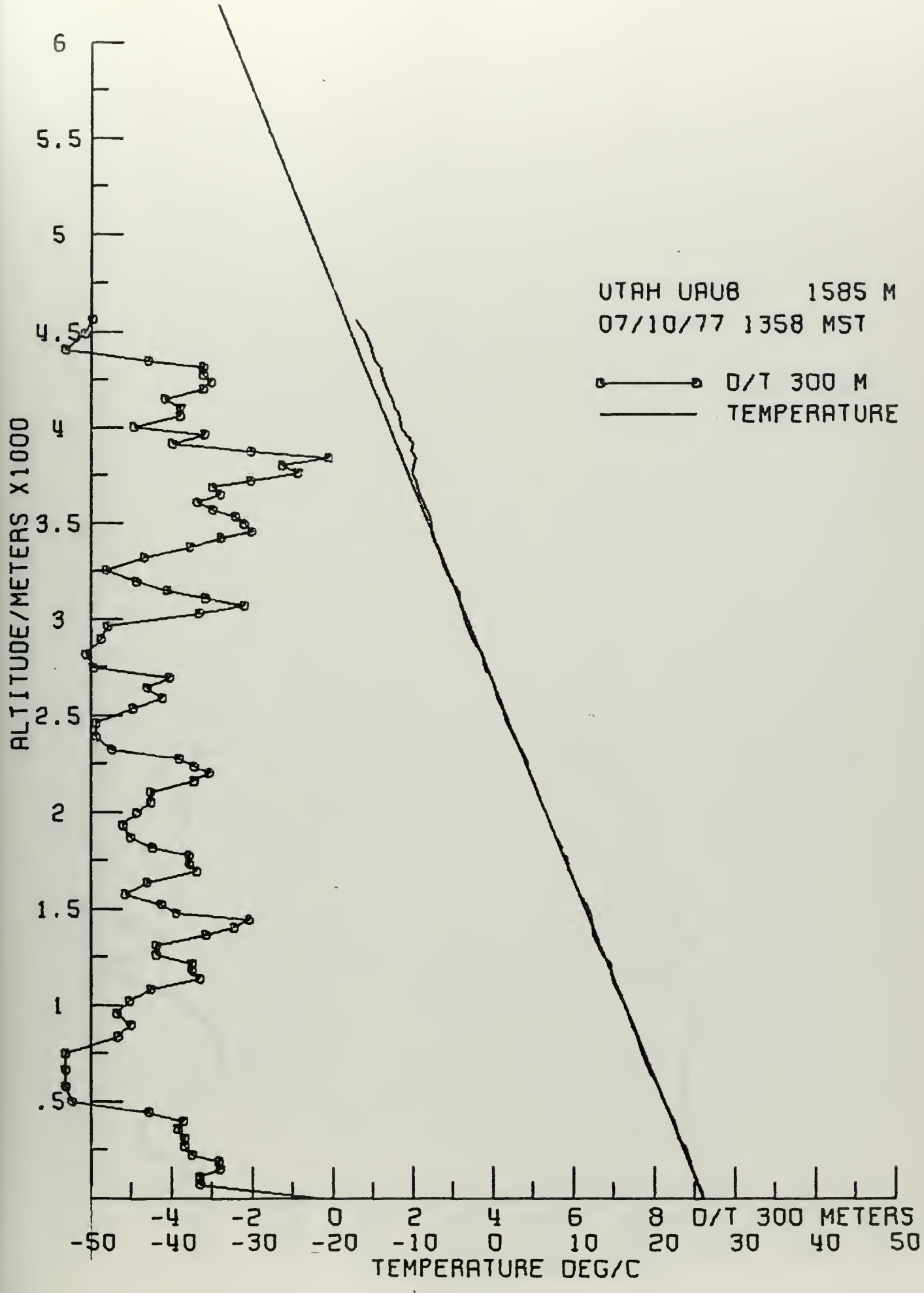
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/10/77 0558 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAU8 1585 M
07/10/77 1358 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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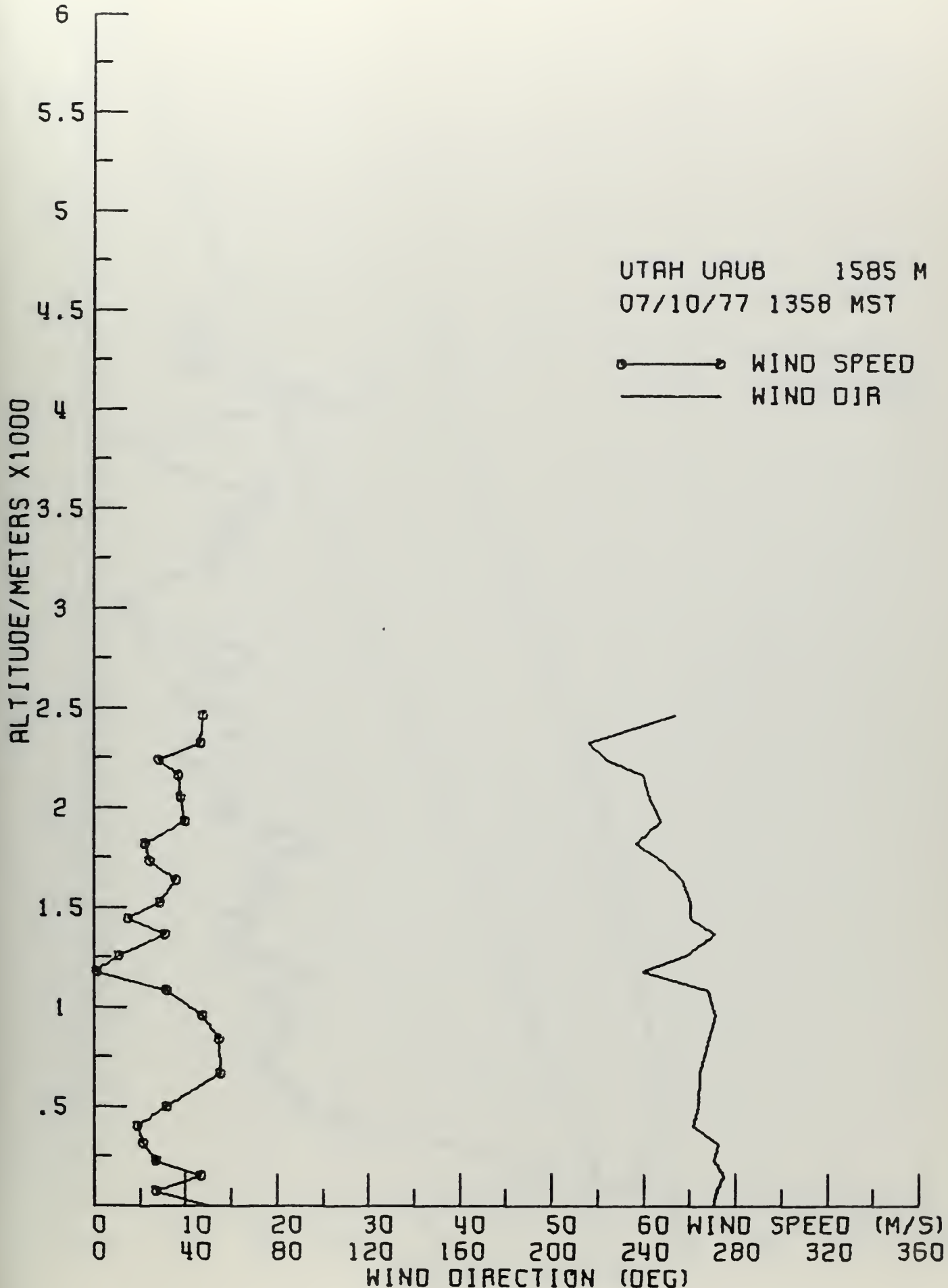
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/10/77 1358 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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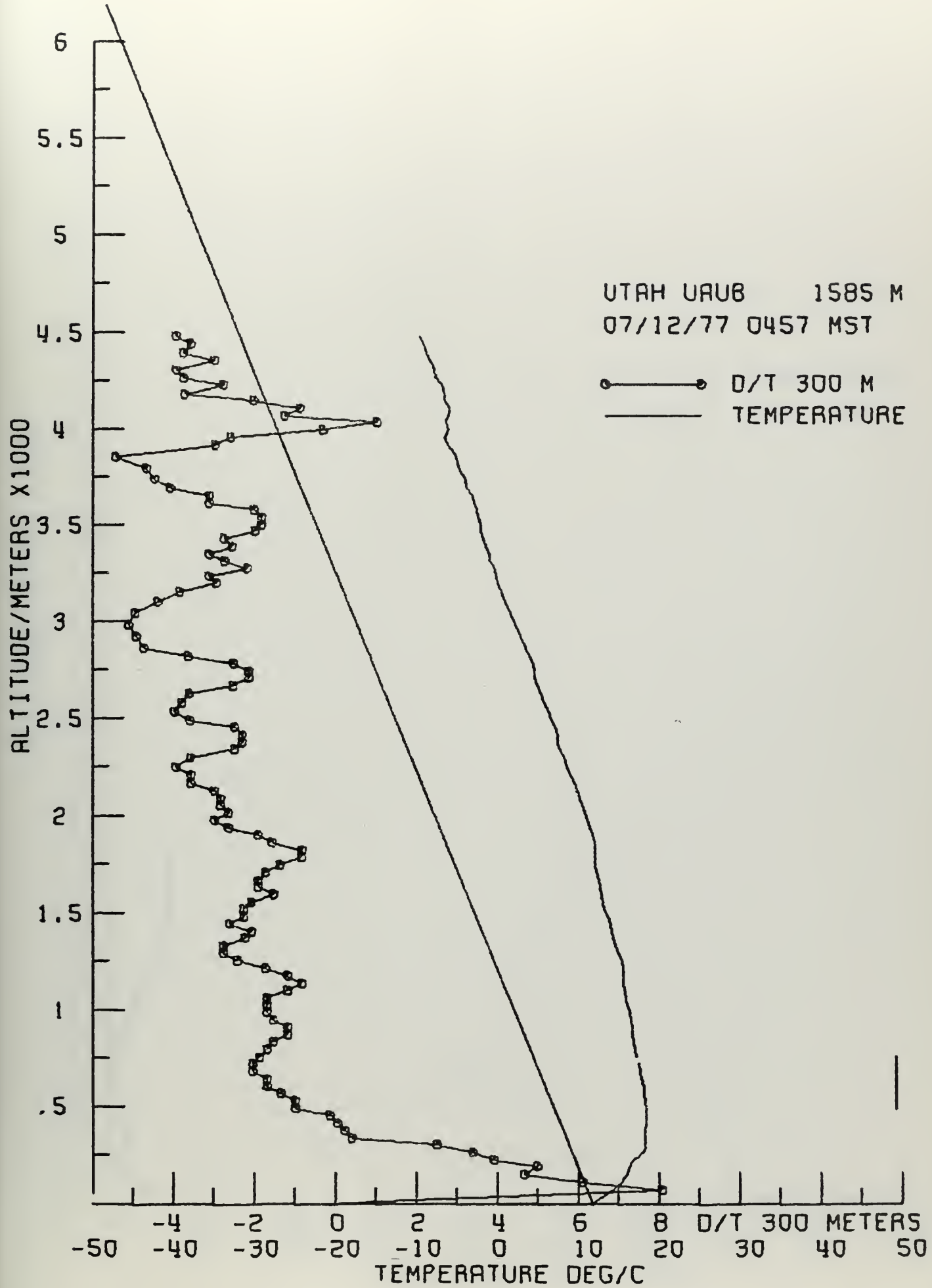
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/12/77 0457 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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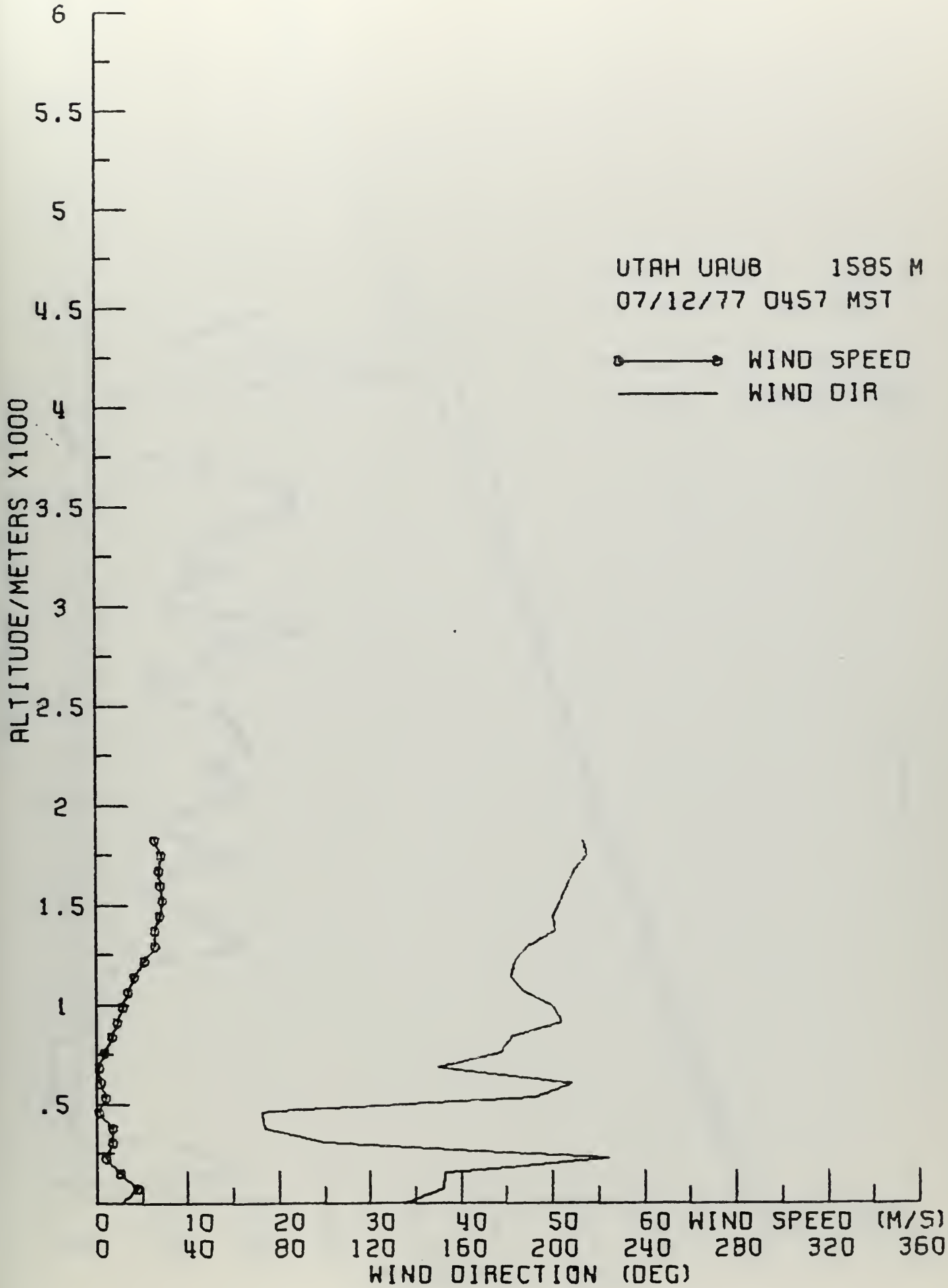
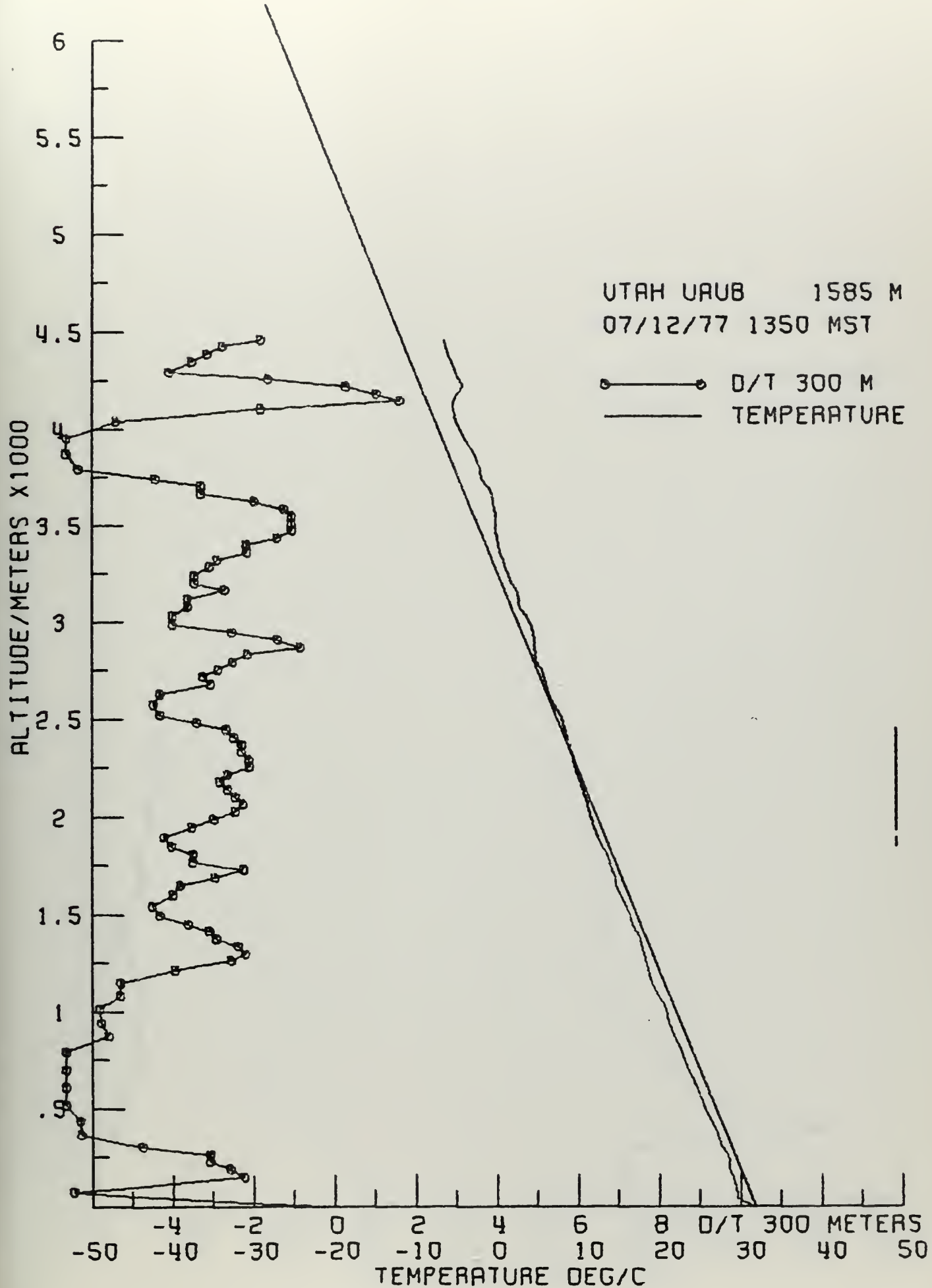
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/12/77 0457 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/12/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4.5
4
3.5
3
2.5
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1.5
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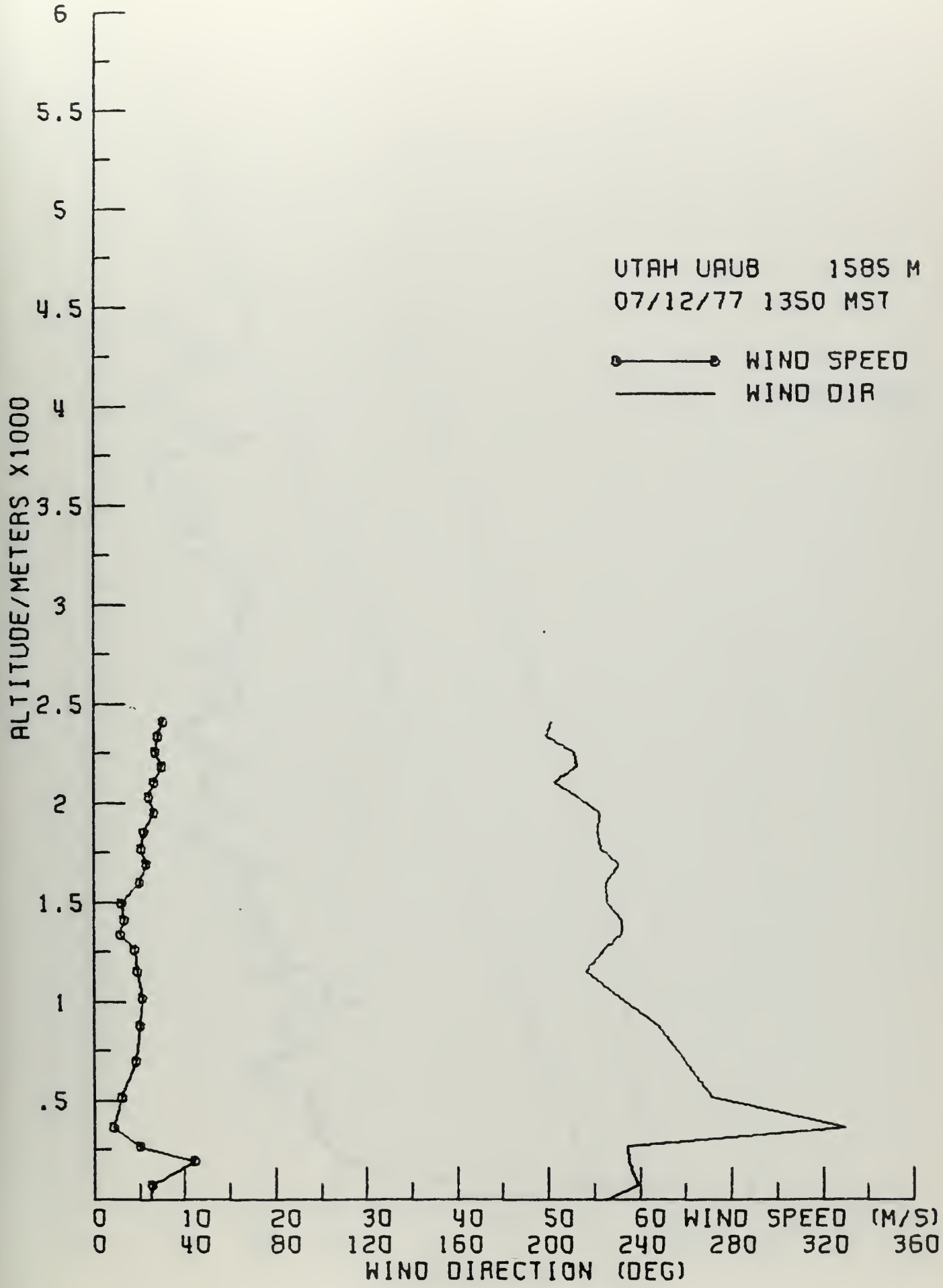
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/12/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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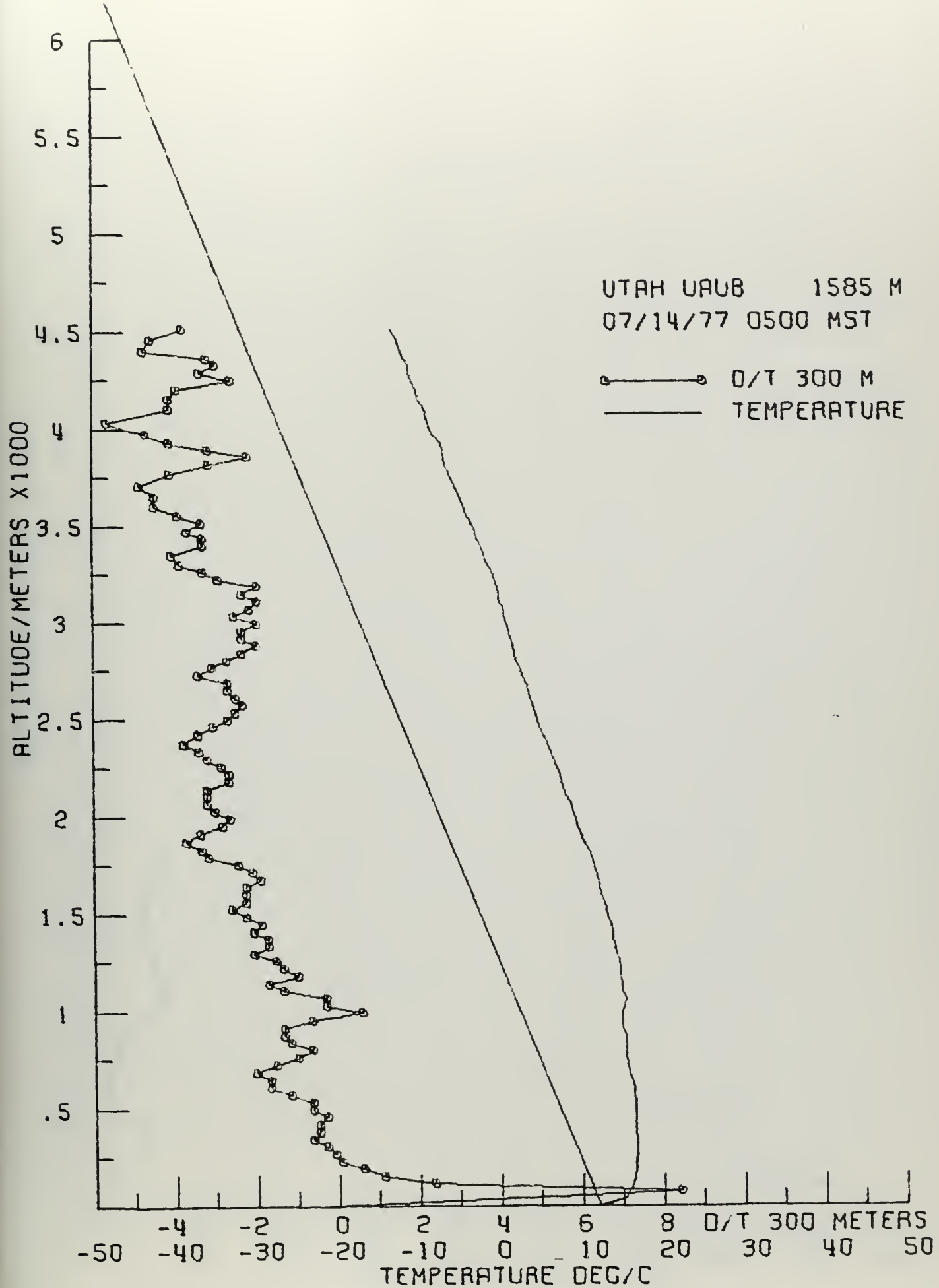
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/14/77 0500 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4
3.5
3
2.5
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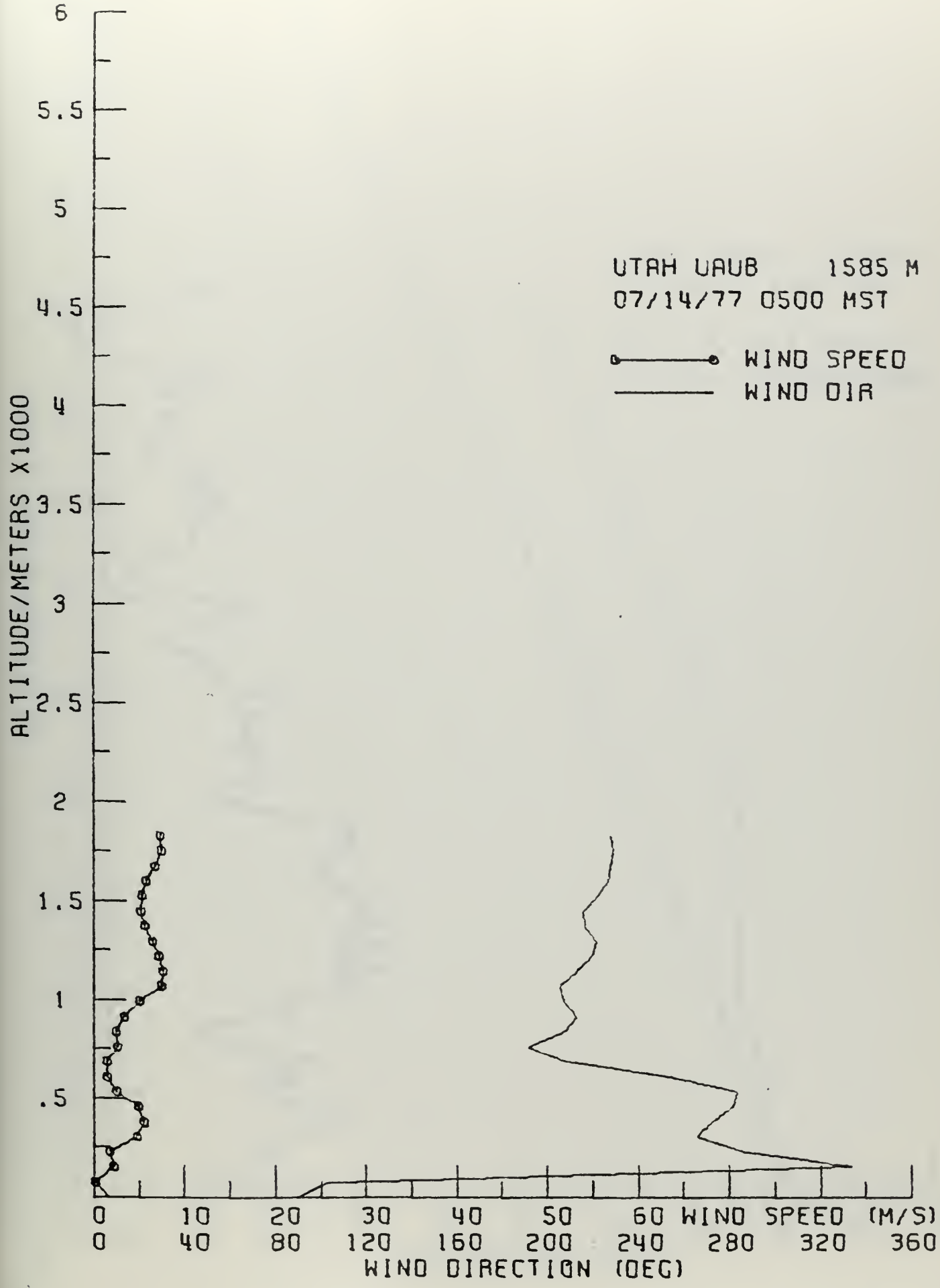
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/14/77 0500 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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3.5
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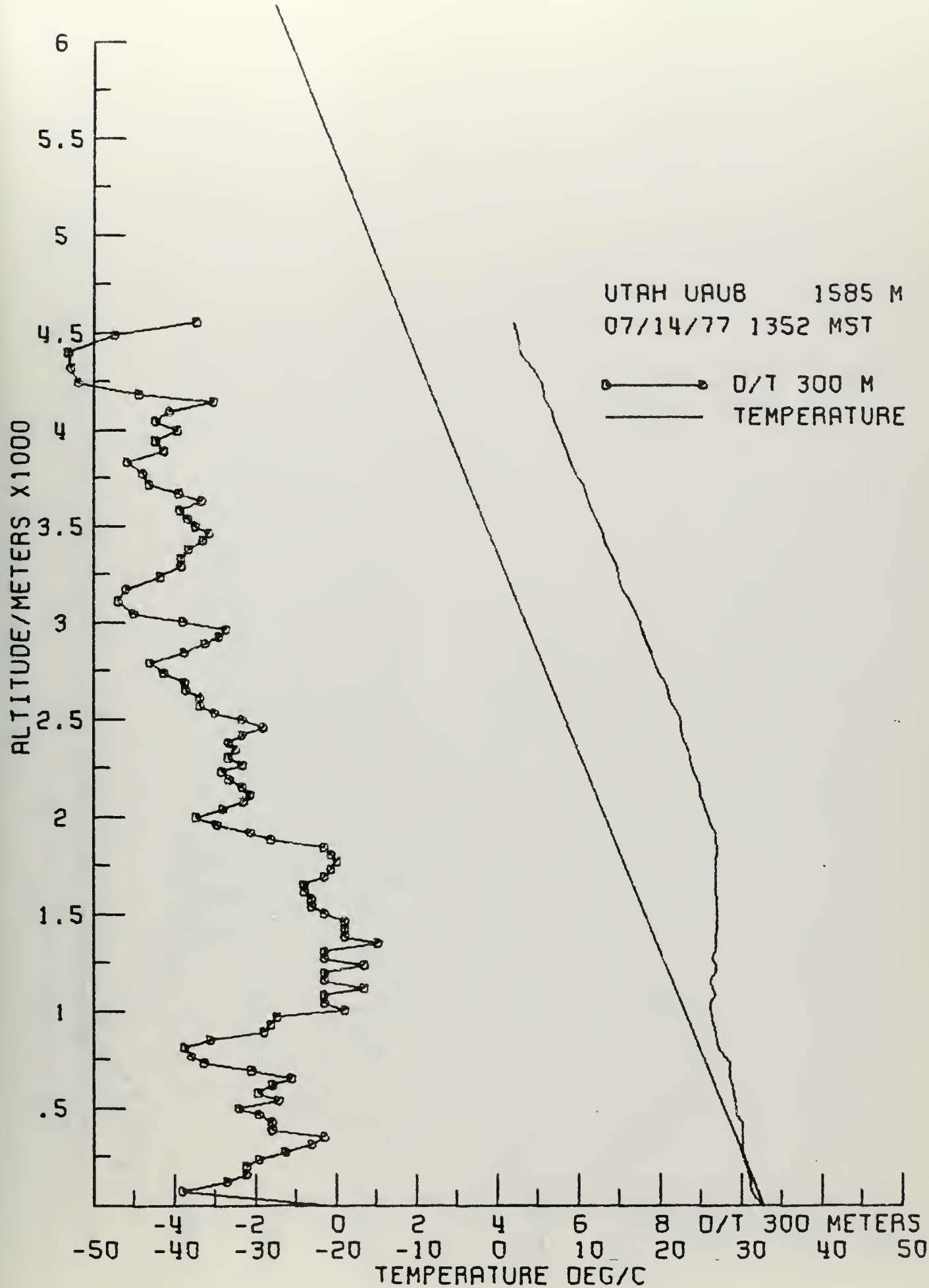
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/14/77 1352 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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4.5
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3.5
3
2.5
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.5
-4 -2 0 2 4 6 8 D/T 300 METERS
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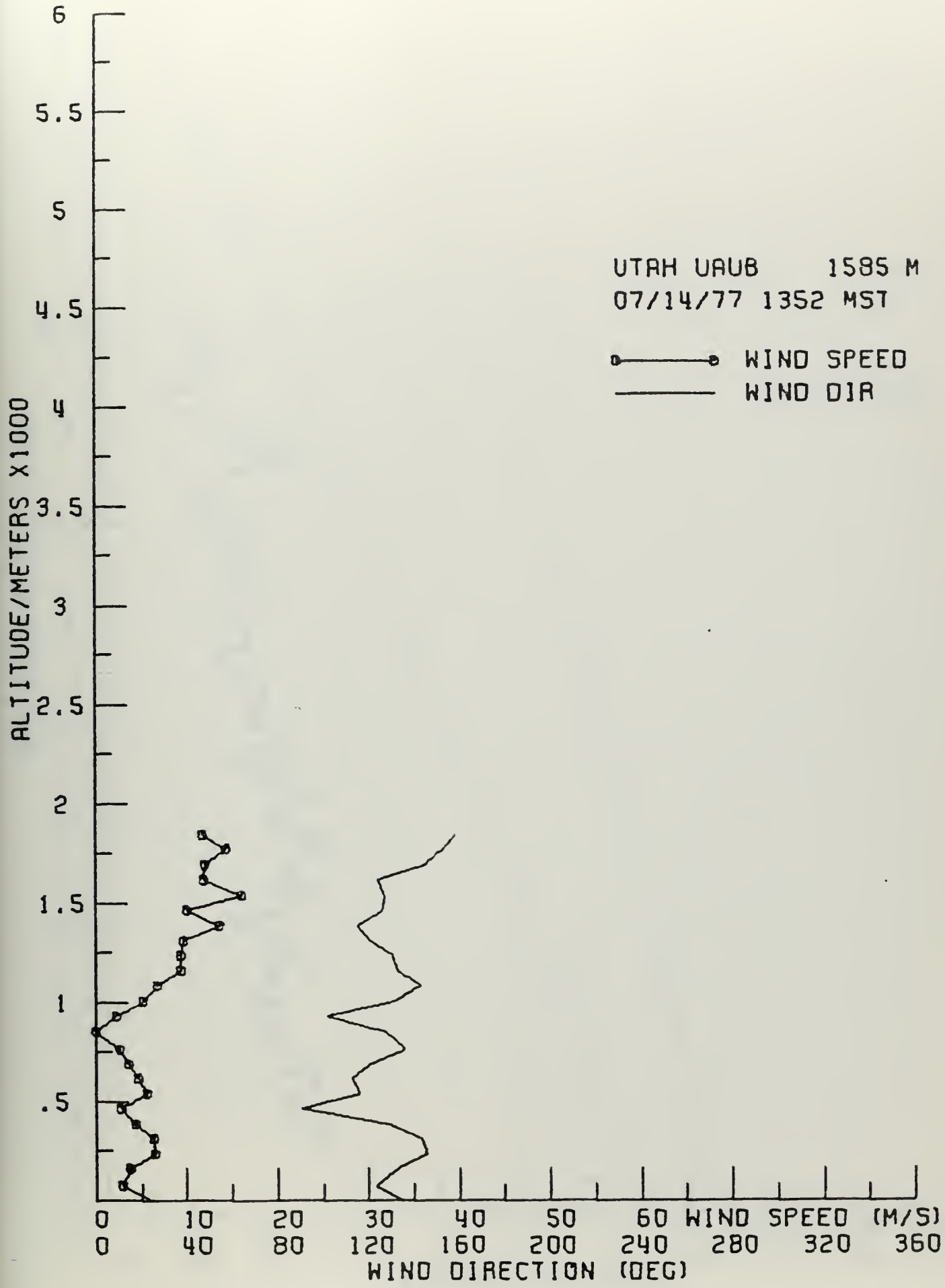
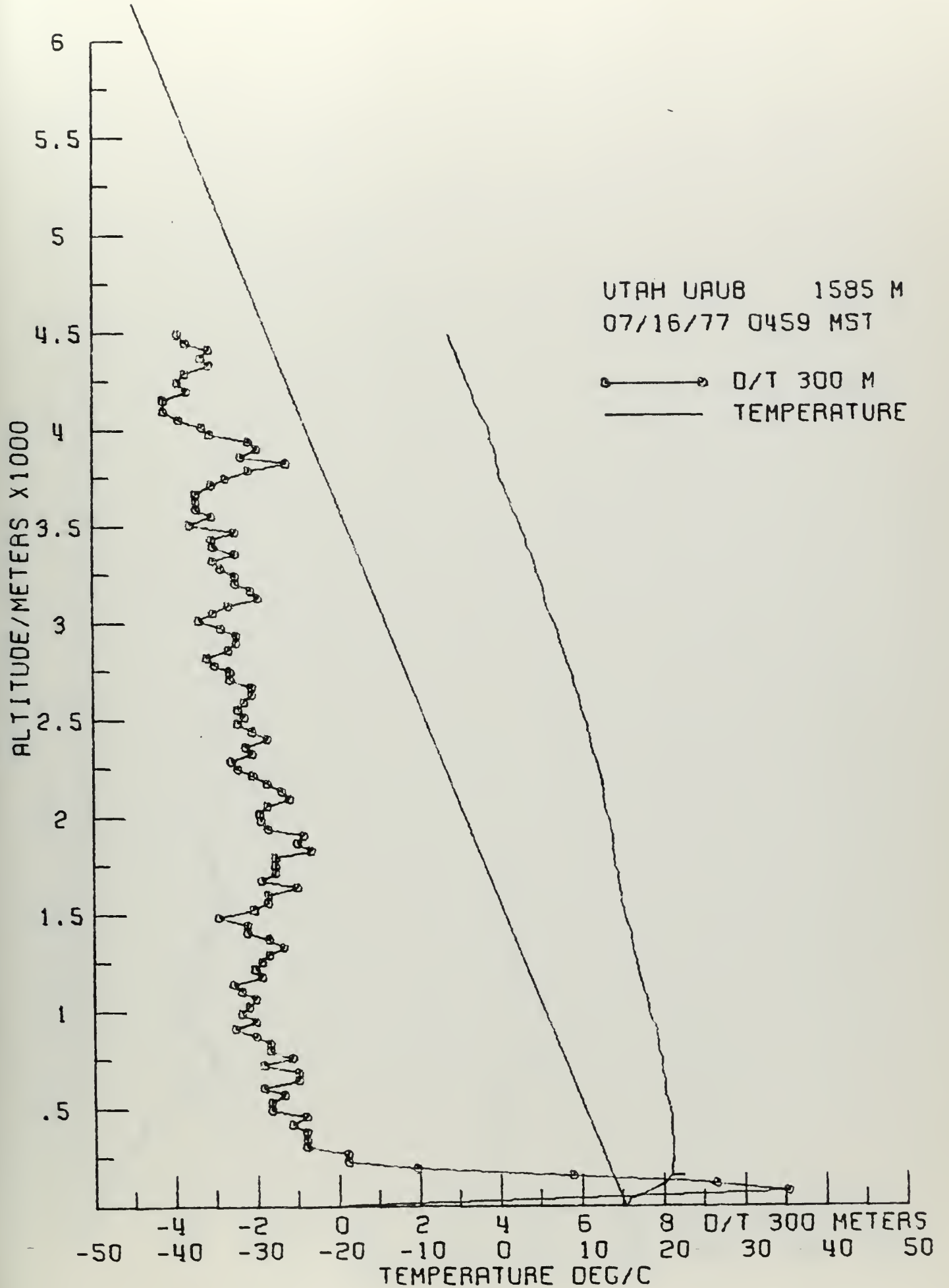
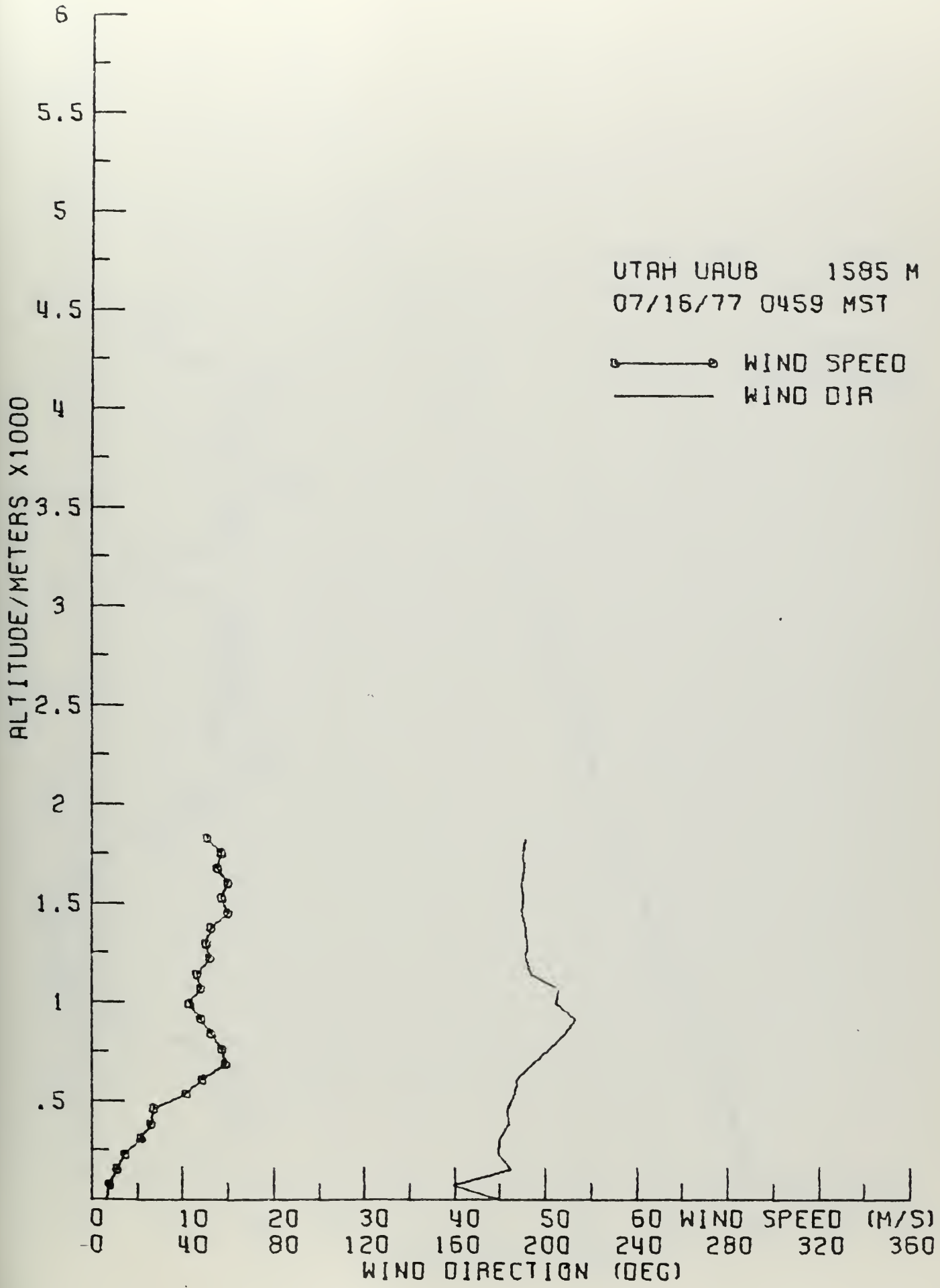
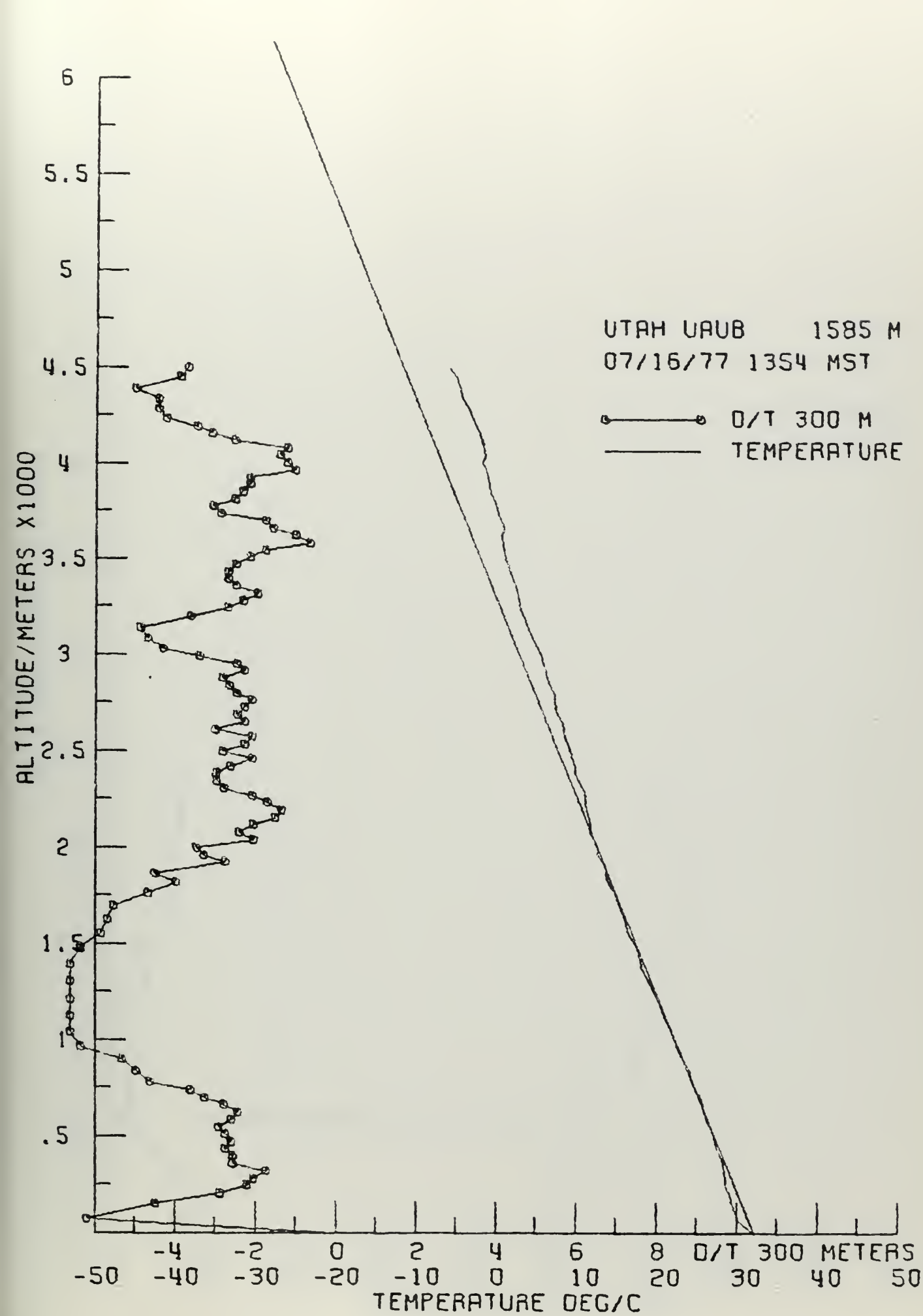
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/14/77 1352 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/16/77 0459 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/16/77 0459 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)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07/16/77 1354 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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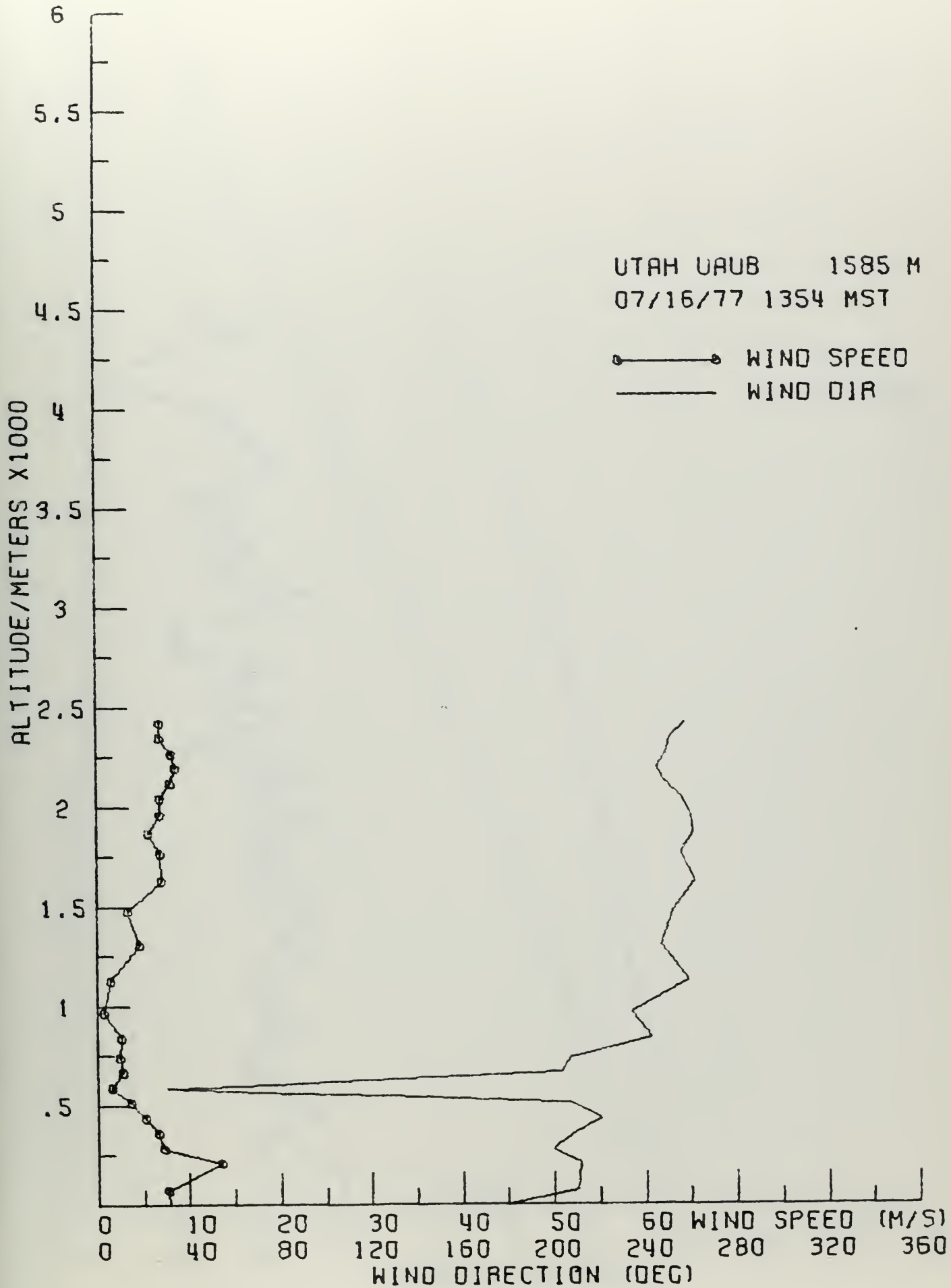
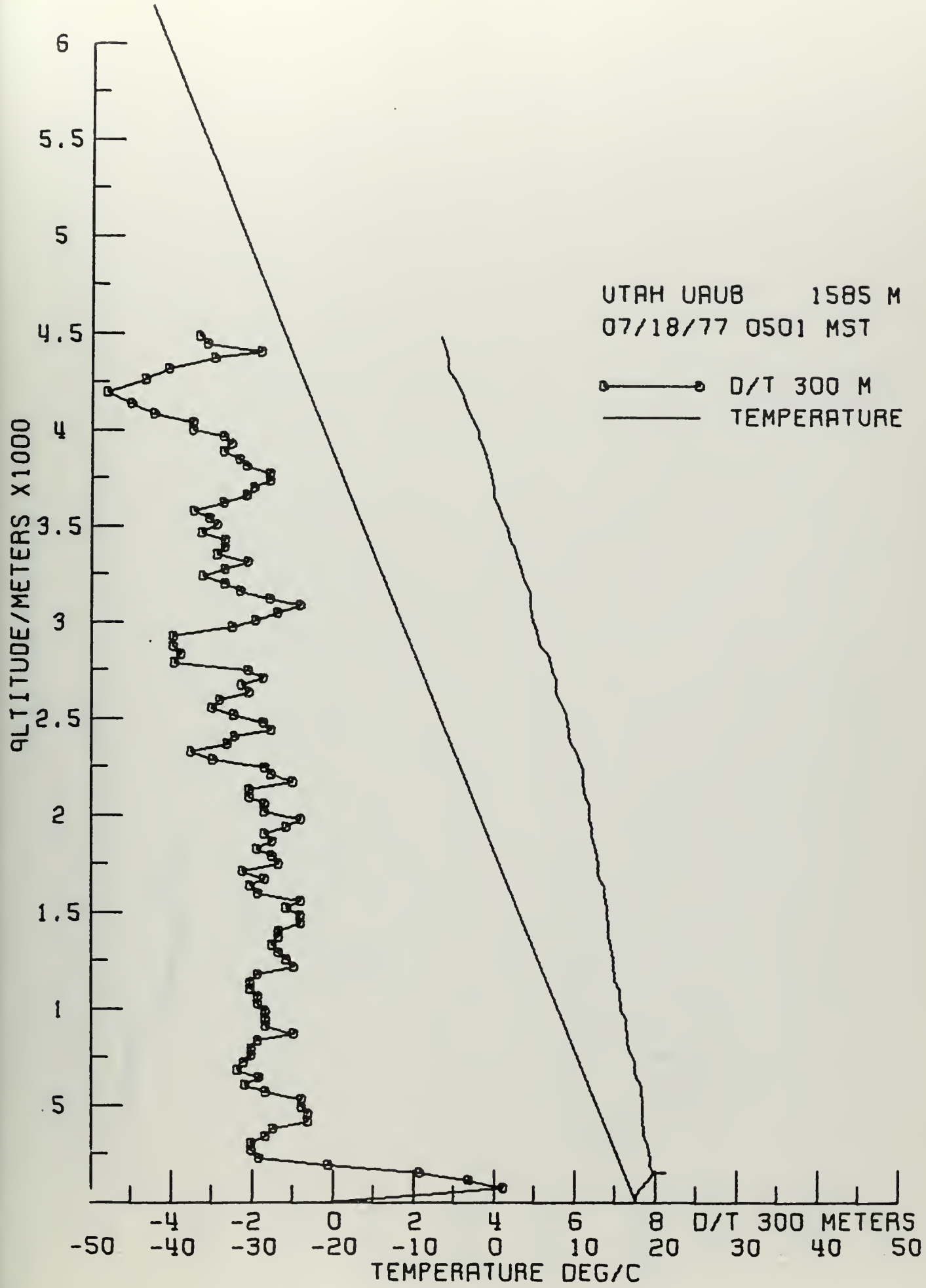
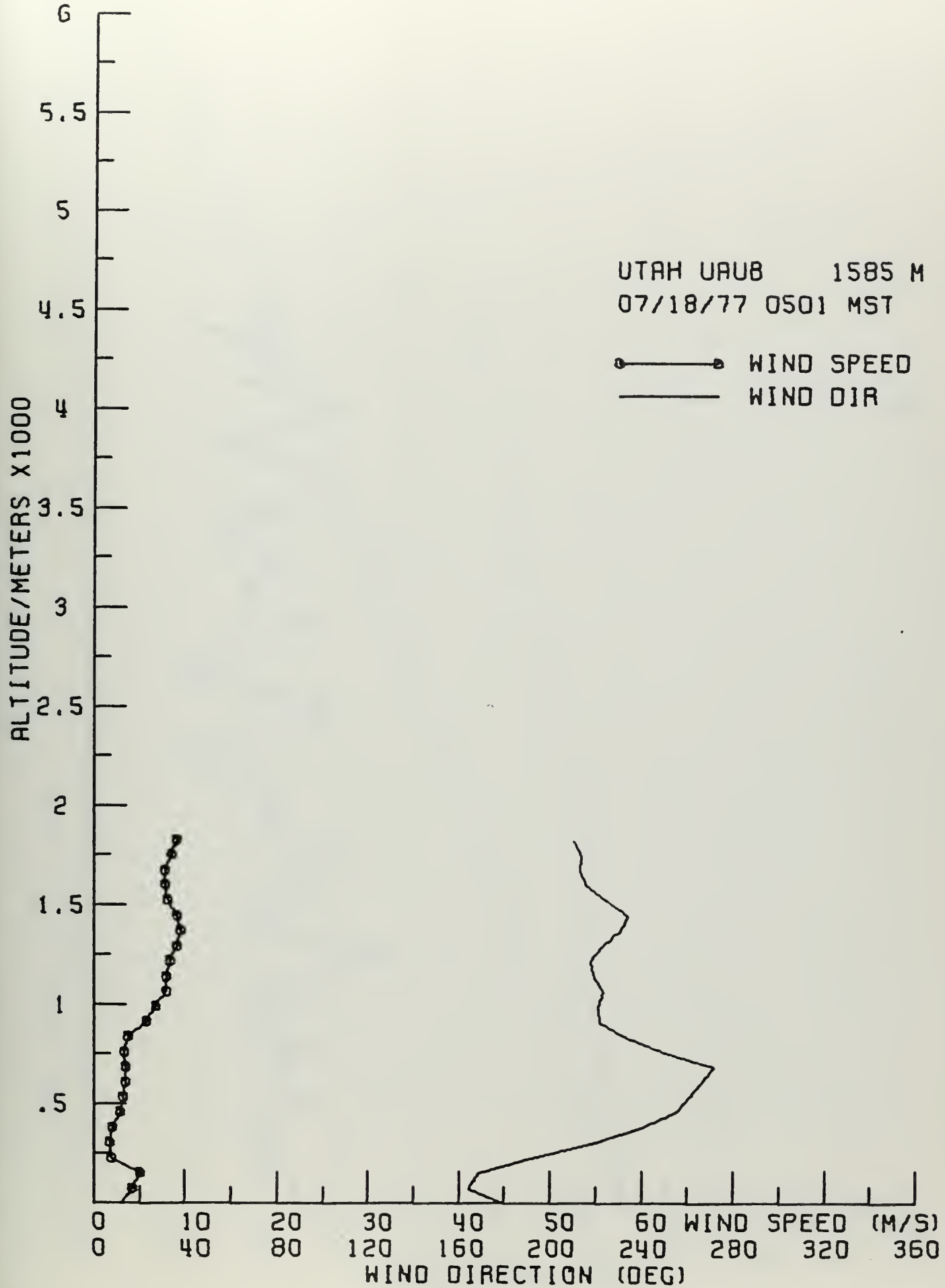
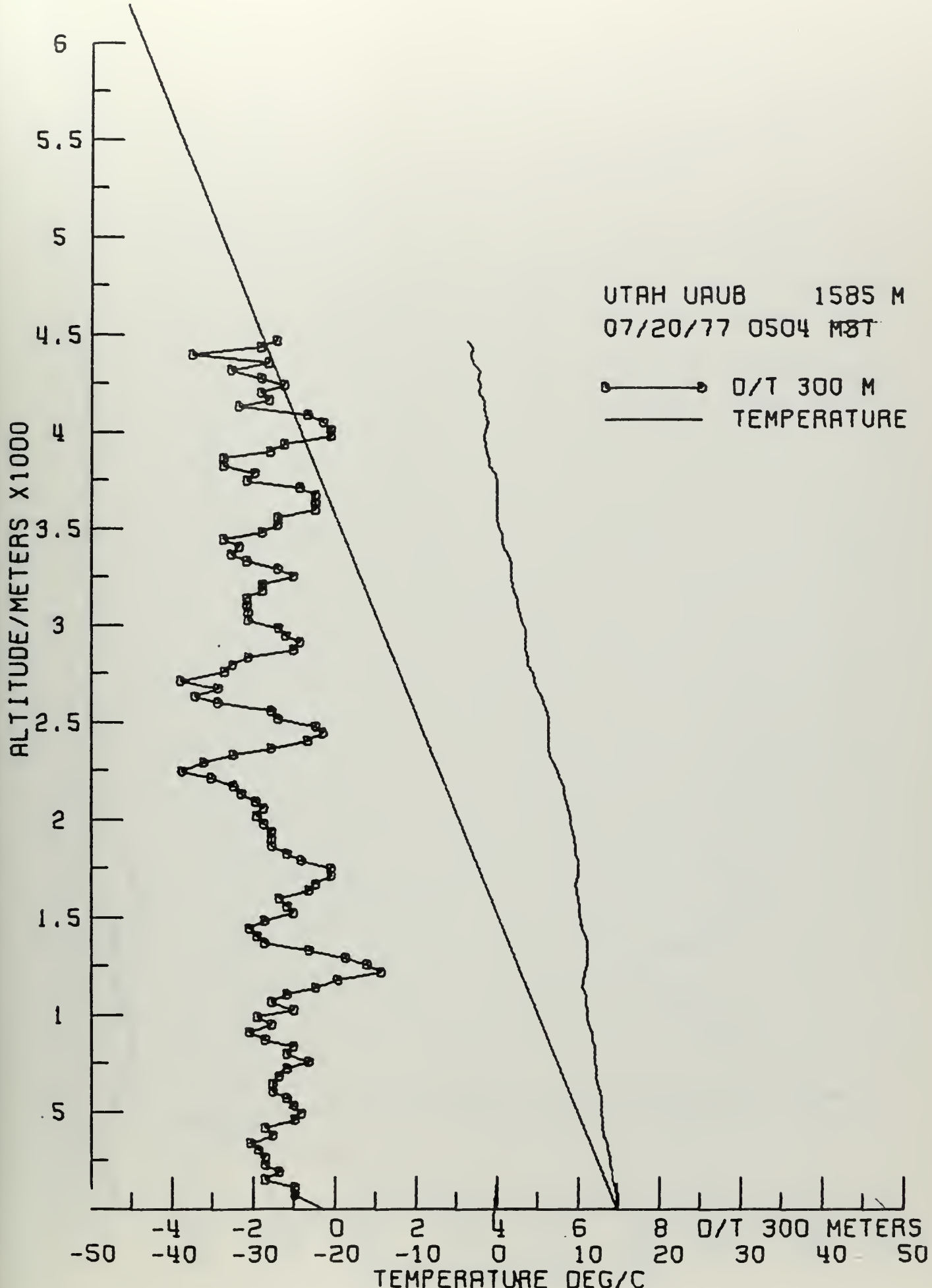
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/16/77 1354 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/18/77 0501 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
D/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/18/77 0501 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/20/77 0504 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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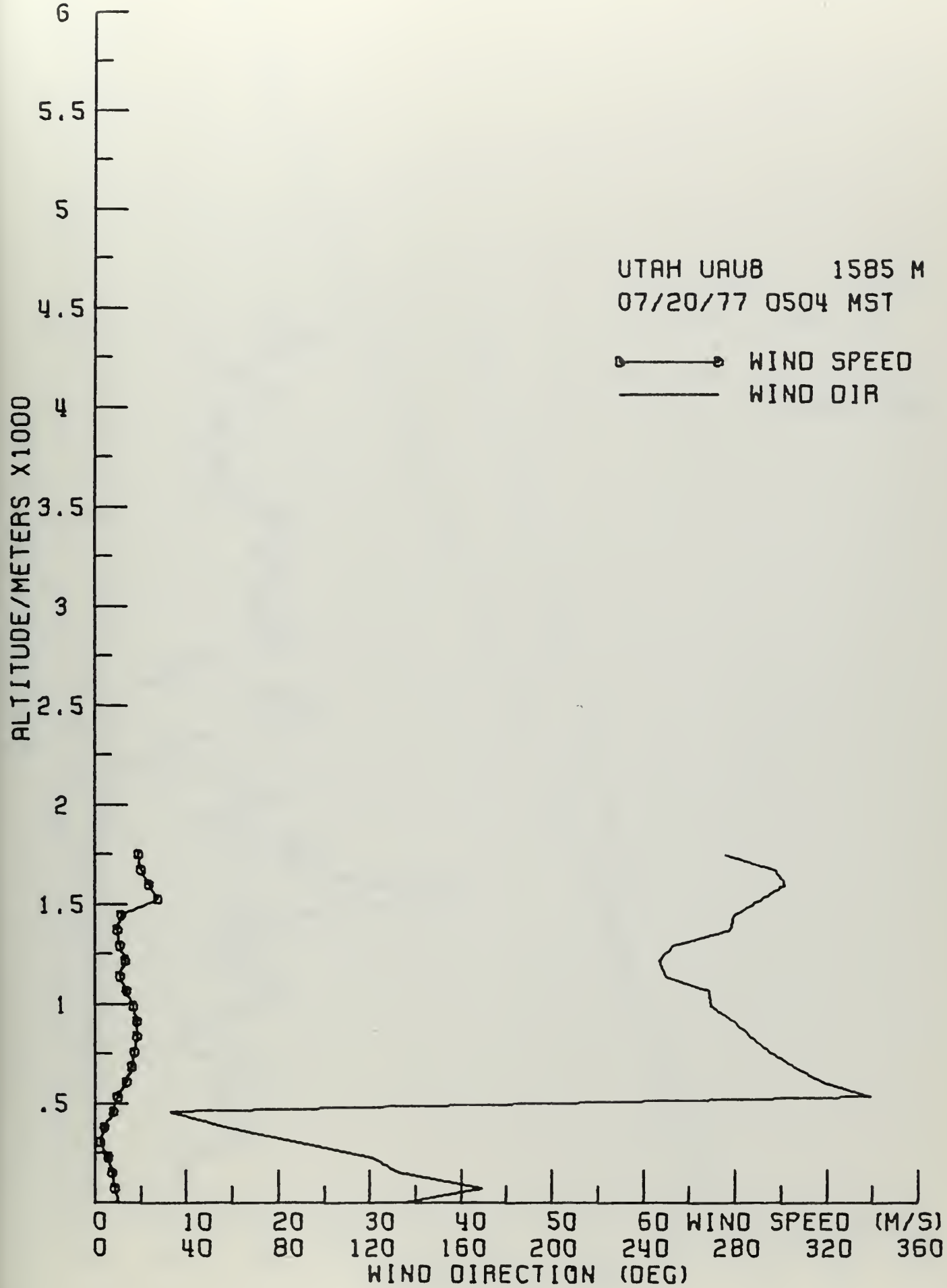
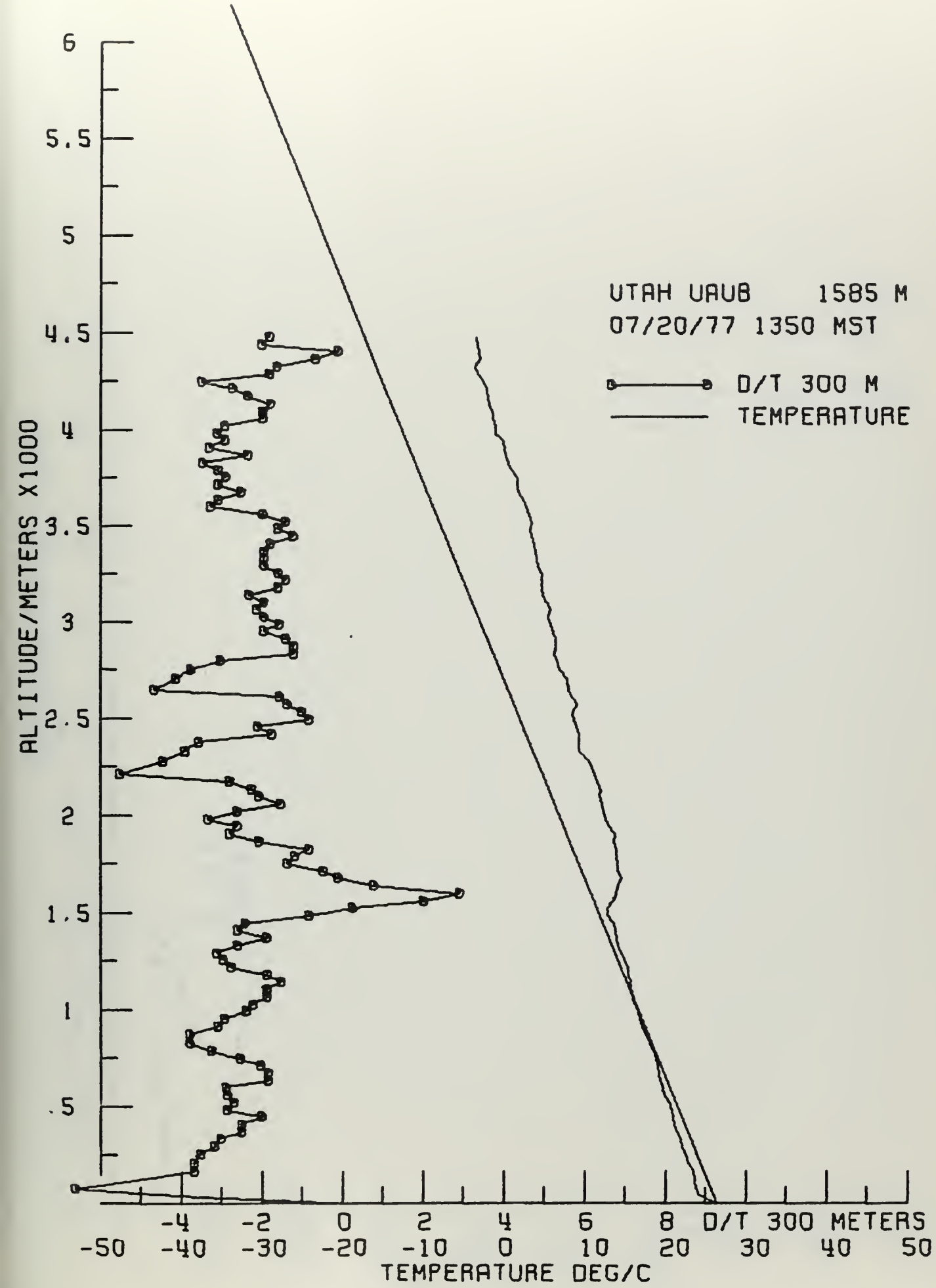
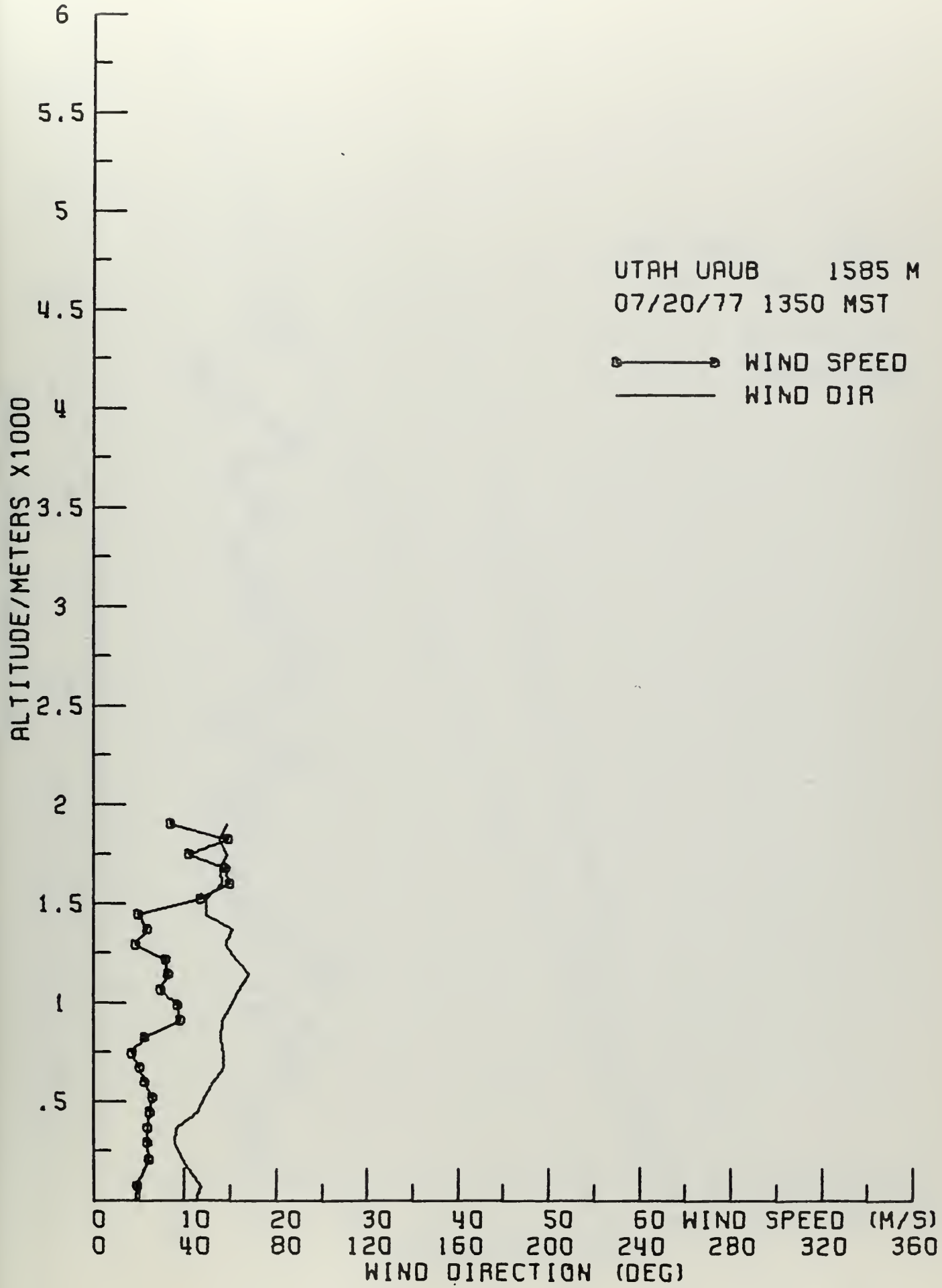
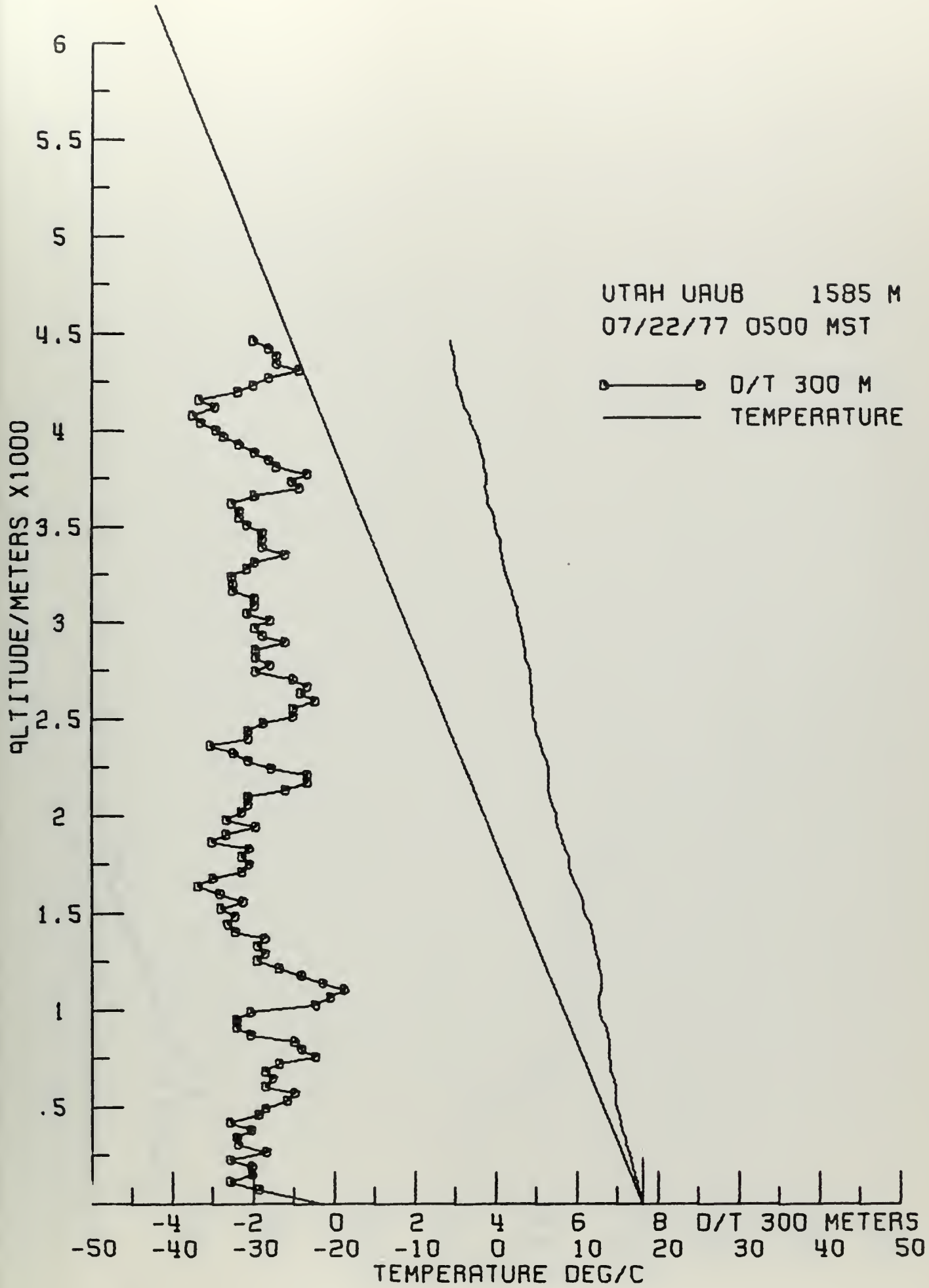
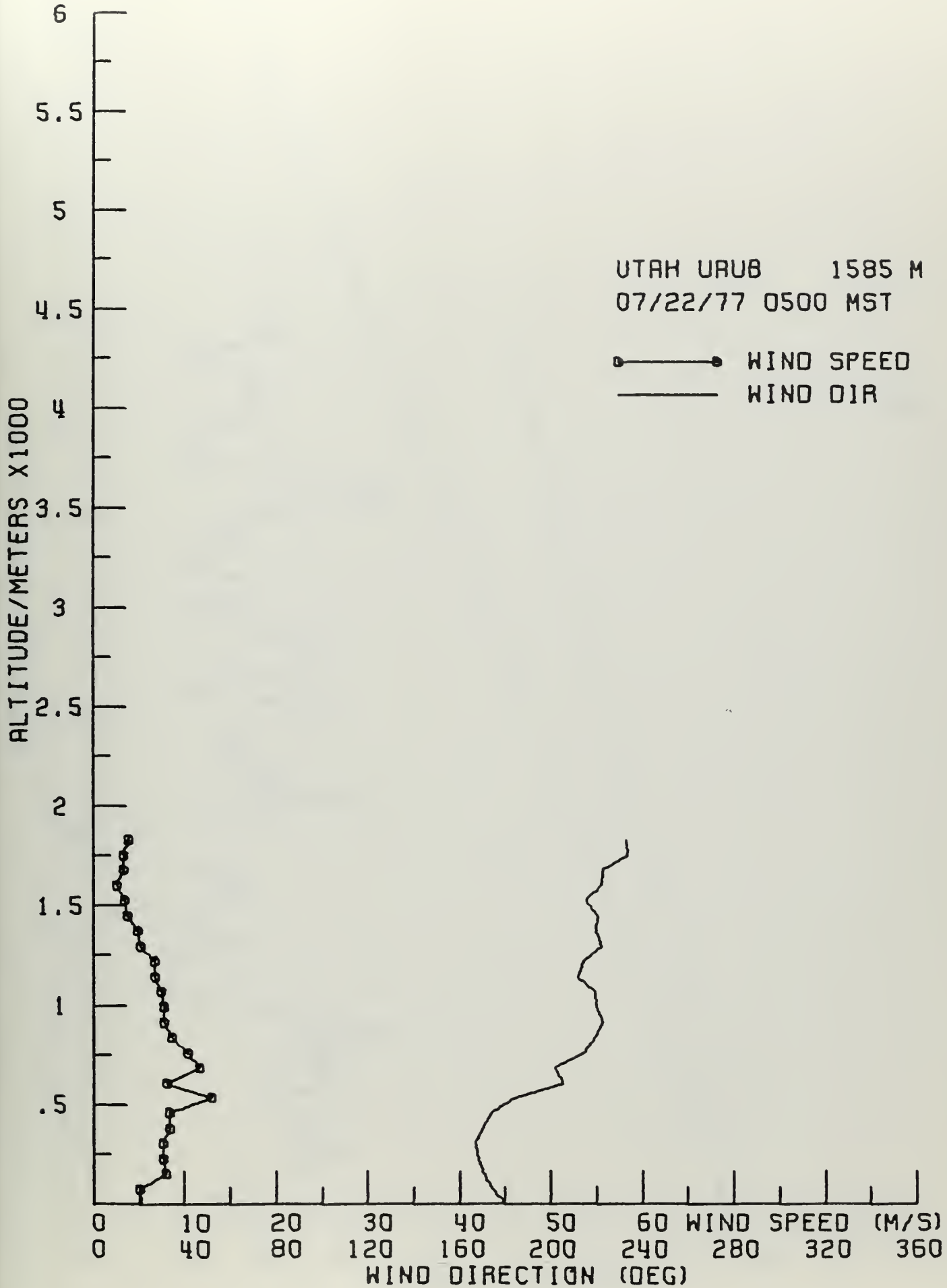
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C

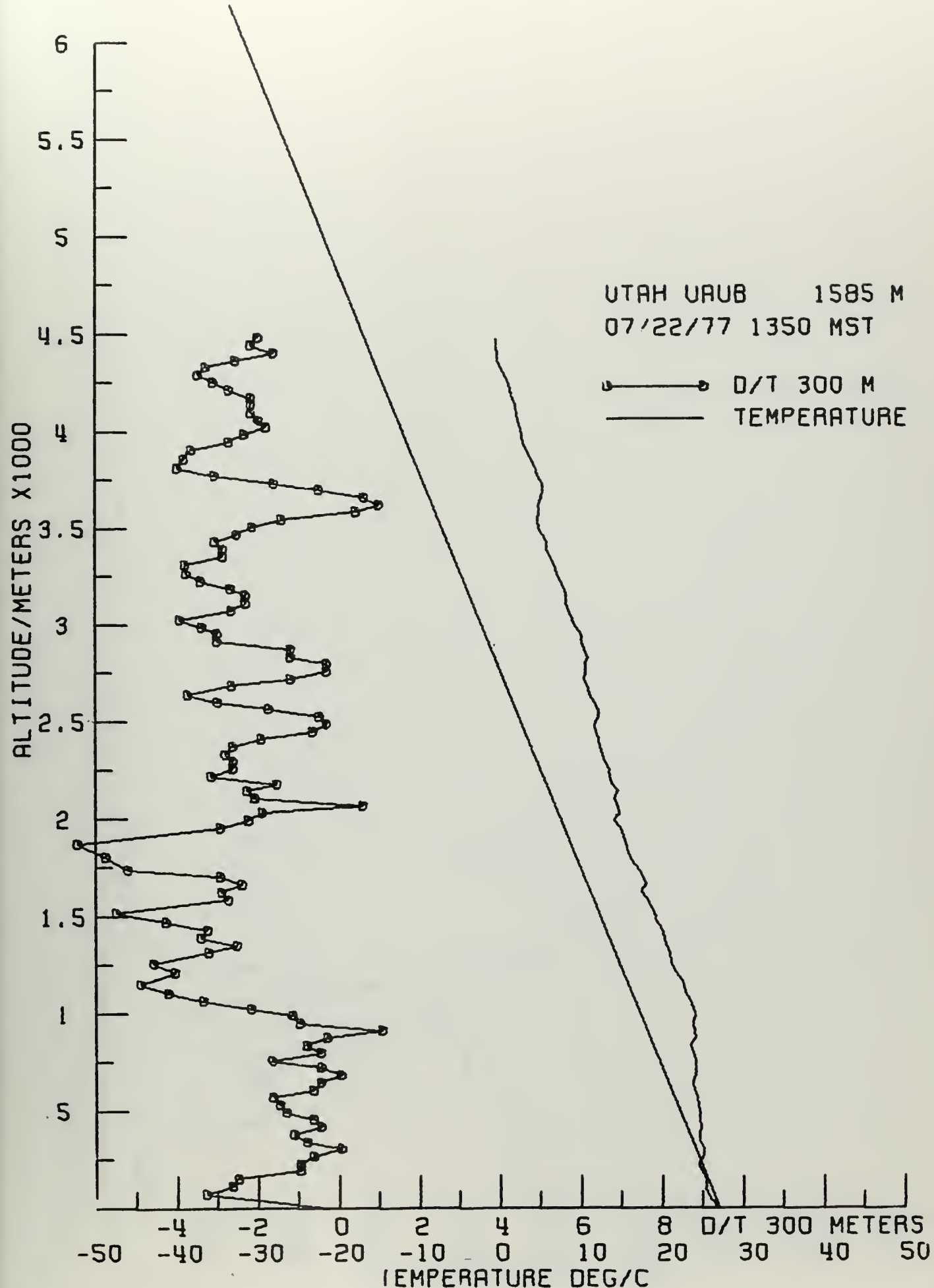

UTAH UAUB 1585 M
07/20/77 0504 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

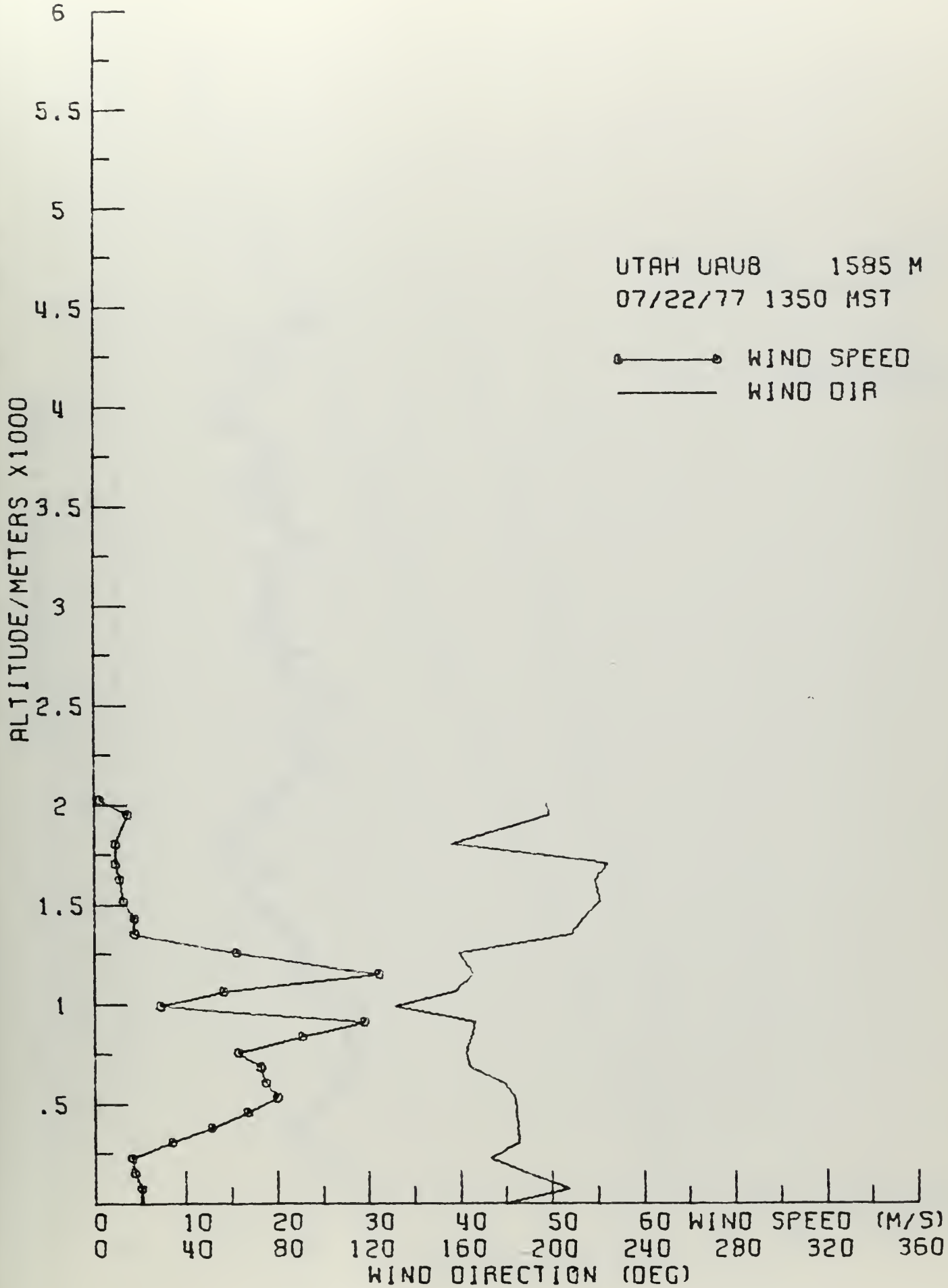

UTAH UAUB 1585 M
07/20/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/20/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/22/77 0500 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
D/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C


UTAH URUB 1585 M
07/22/77 0500 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/22/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4
-2
0
2
4
6
8
D/T 300 METERS
-50
-40
-30
-20
-10
0
10
20
30
40
50
TEMPERATURE DEG/C


UTAH UAU8 1585 M
07/22/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
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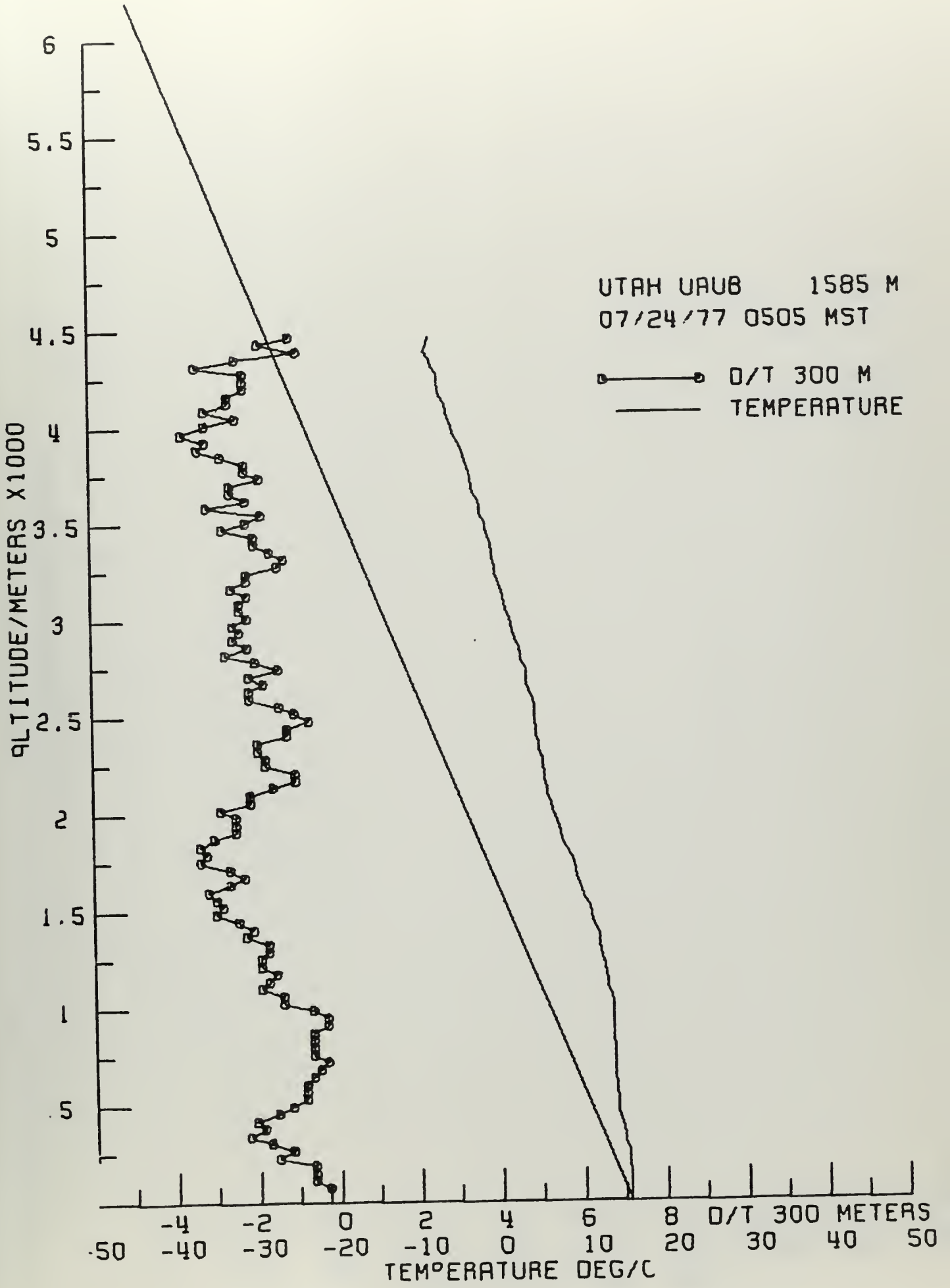
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/24/77 0505 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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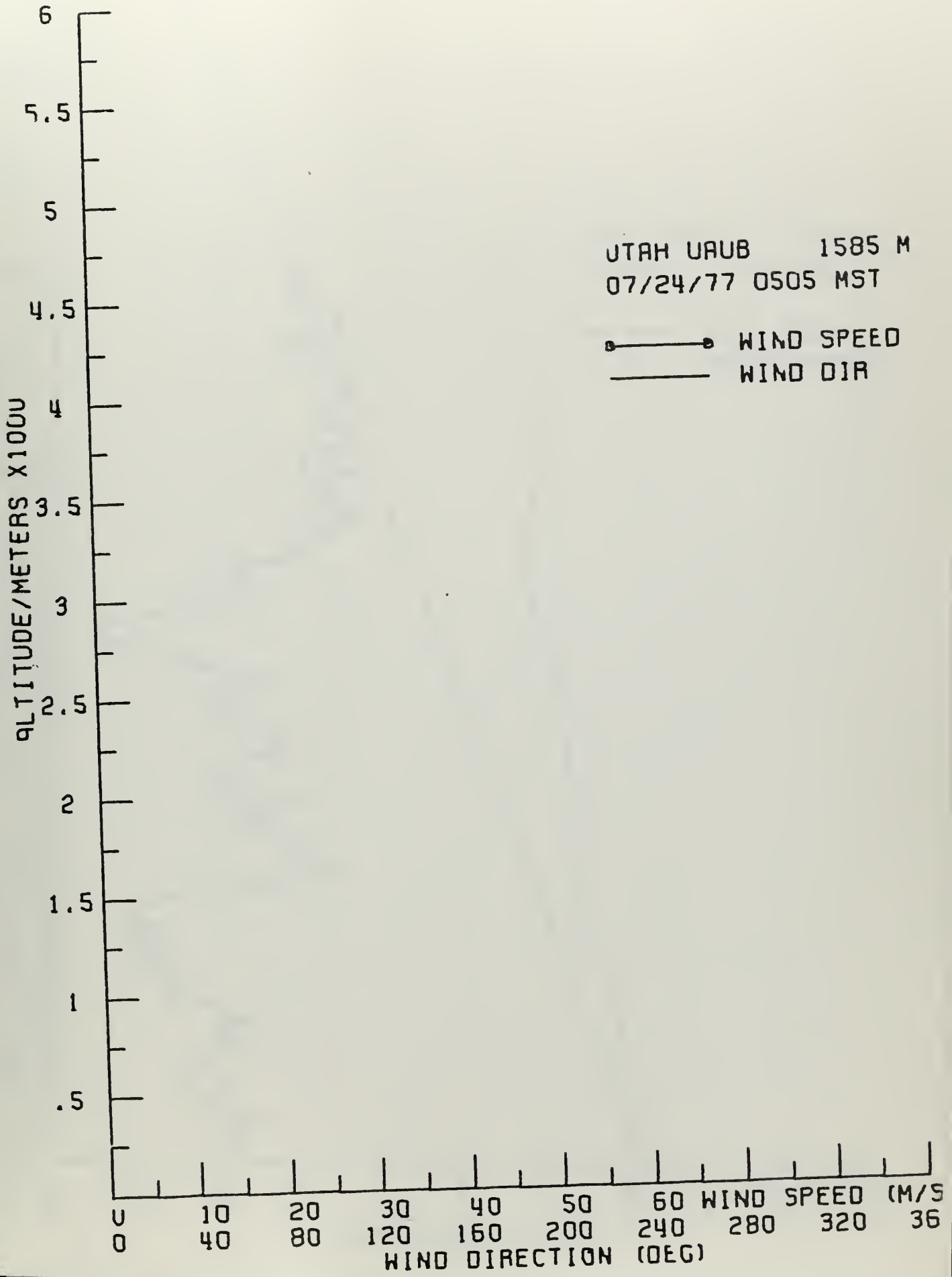
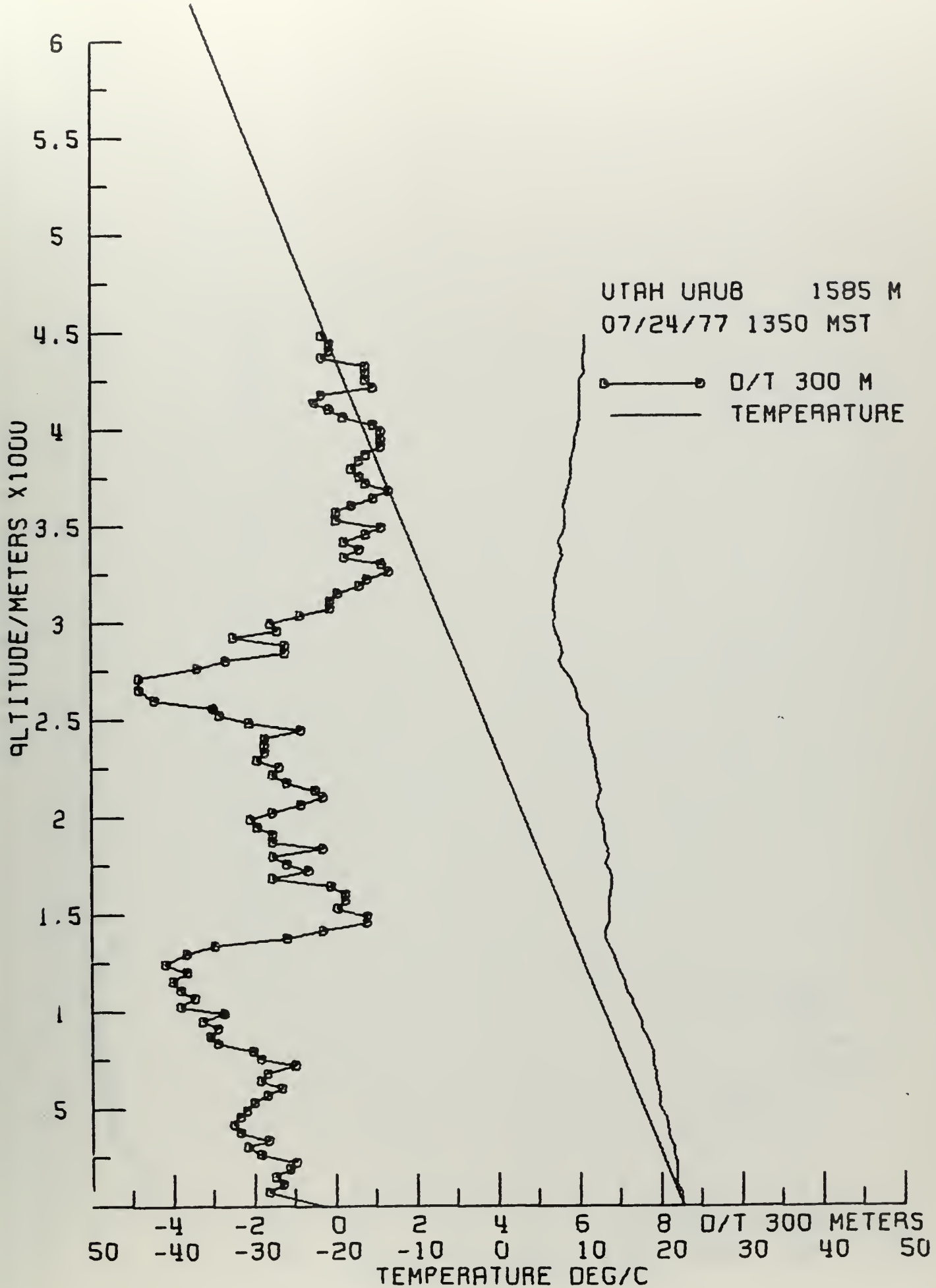
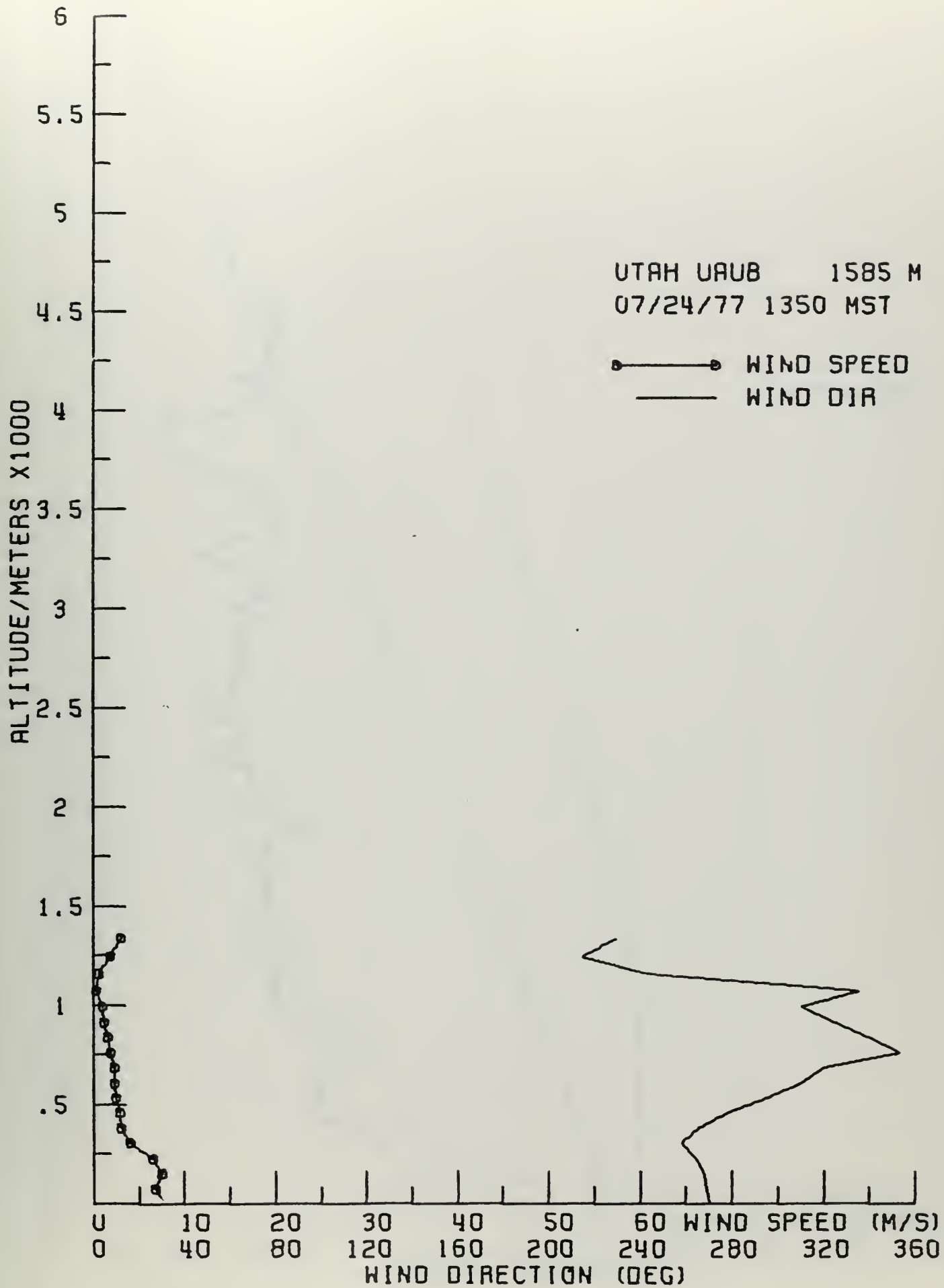
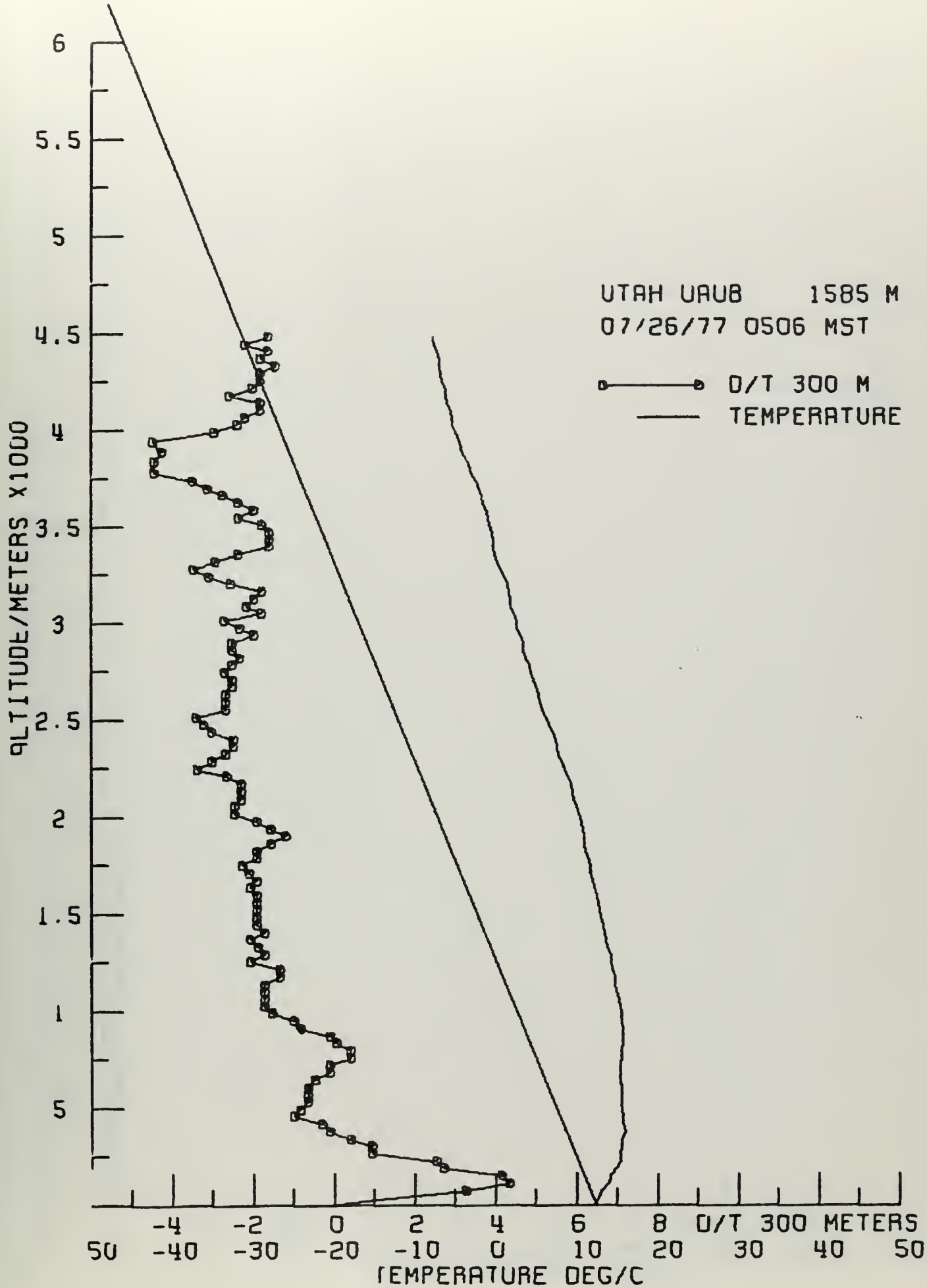
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
ALTITUDE/METERS X1000
UTAH UAUB 1585 M
07/24/77 0505 MST
WIND SPEED
WIND DIR
0 10 20 30 40 50 60 WIND SPEED (M/S
0 40 80 120 160 200 240 280 320 36
WIND DIRECTION (DEG)


UTAH UAU8 1585 M
07/24/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
5
-4 -2 0 2 4 6 8 D/T 300 METERS
50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/24/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/26/77 0506 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
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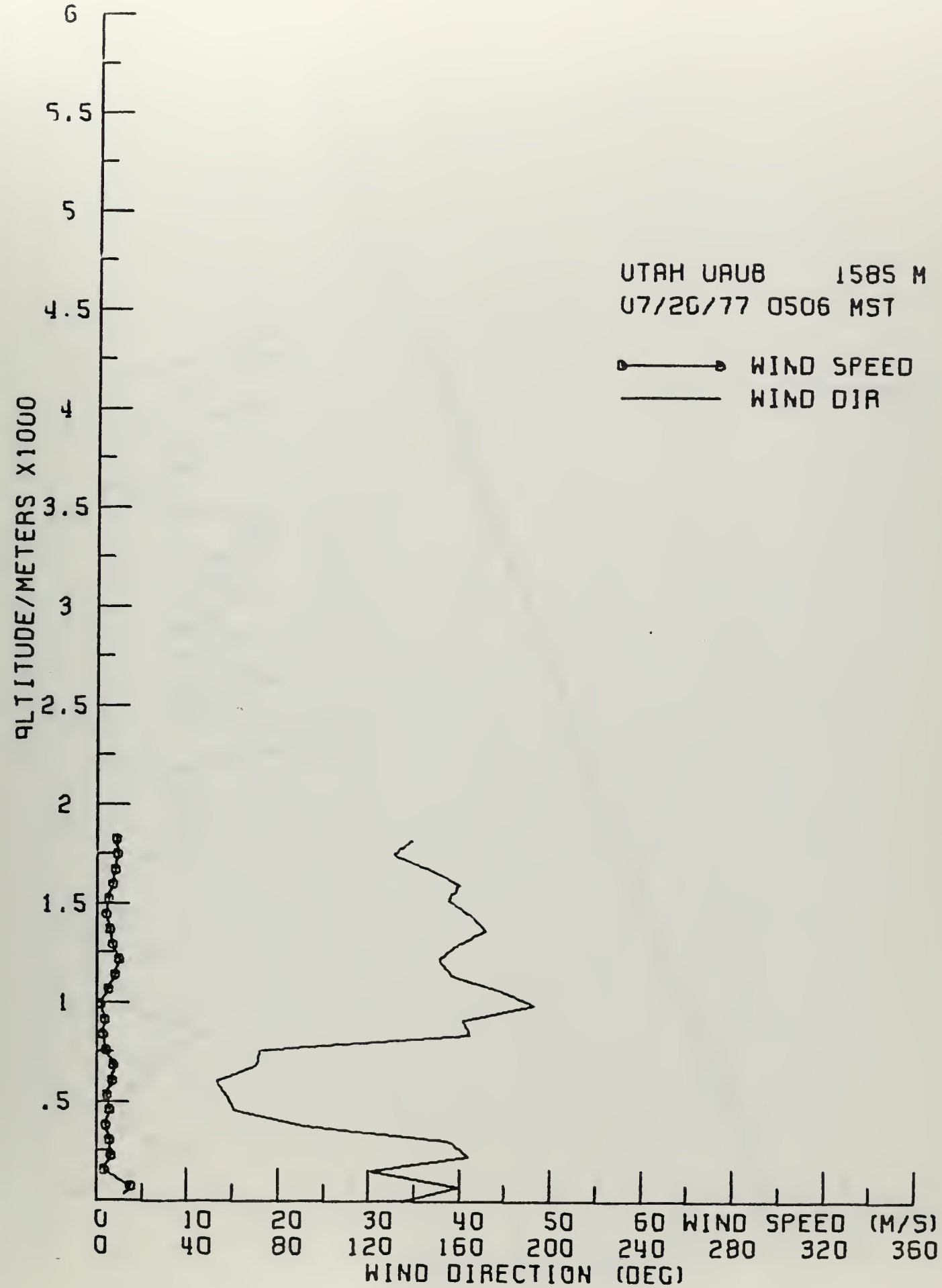
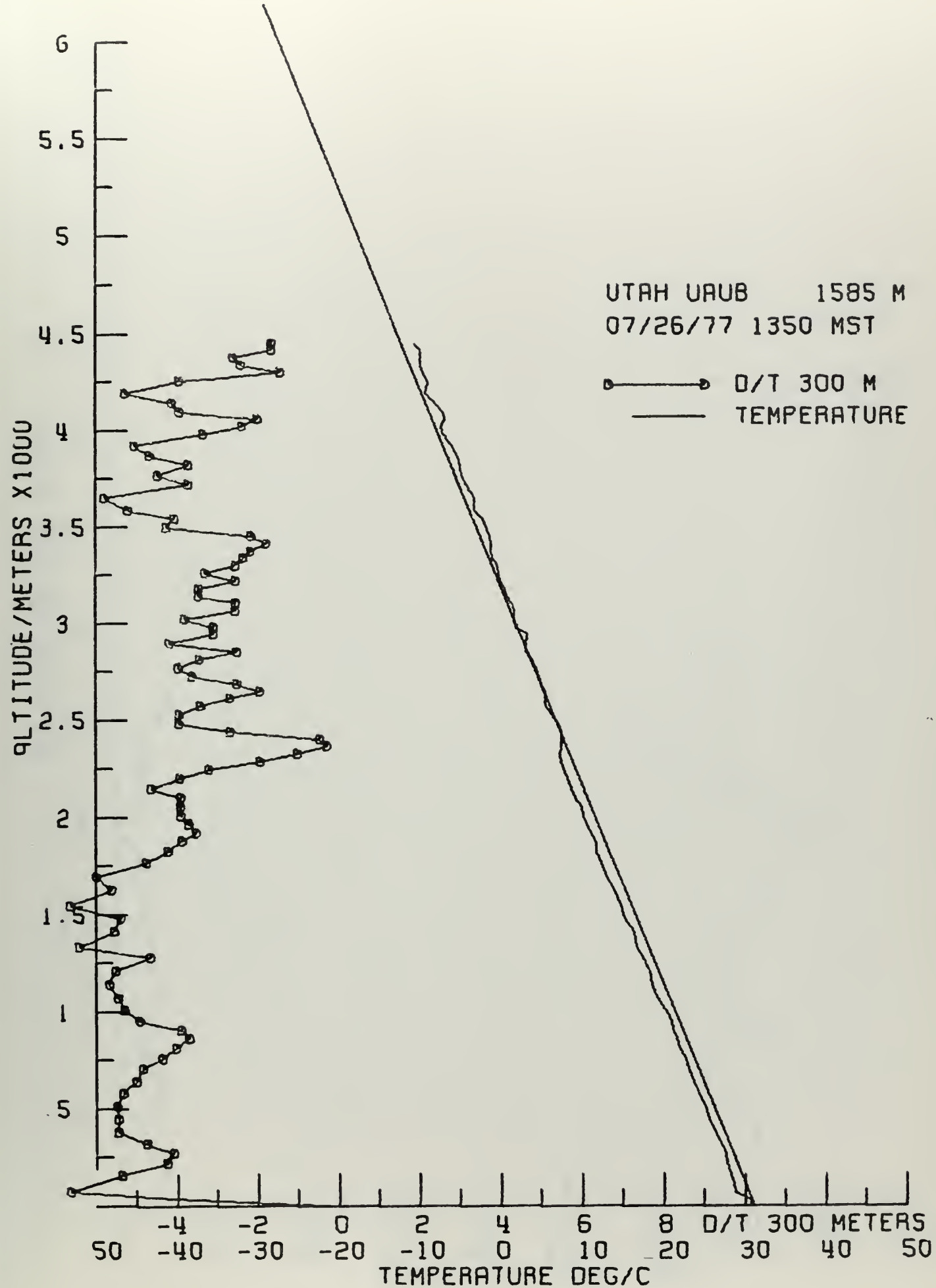
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
5
-4 -2 0 2 4 6 8 D/T 300 METERS
50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/20/77 0506 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/26/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
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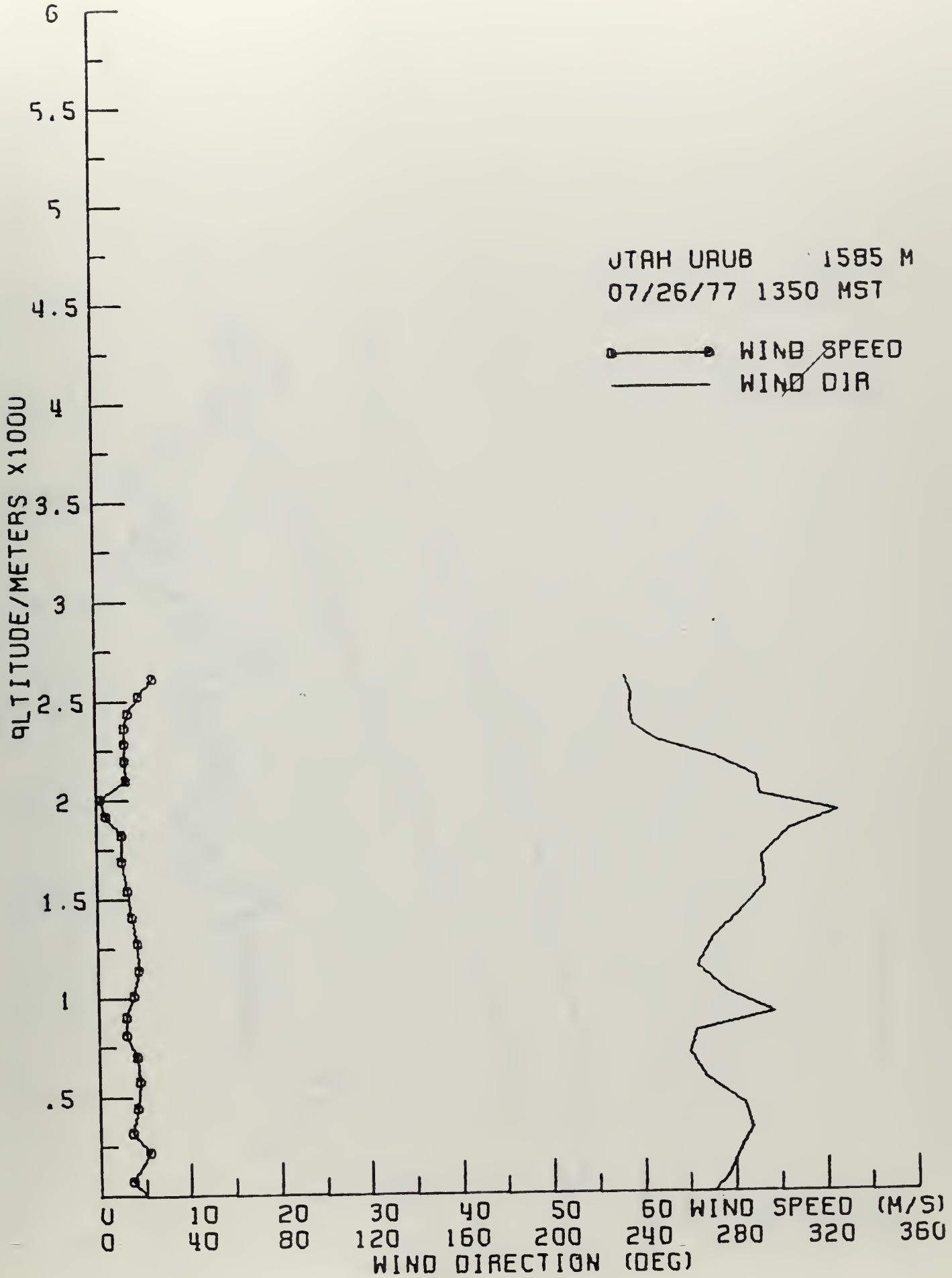
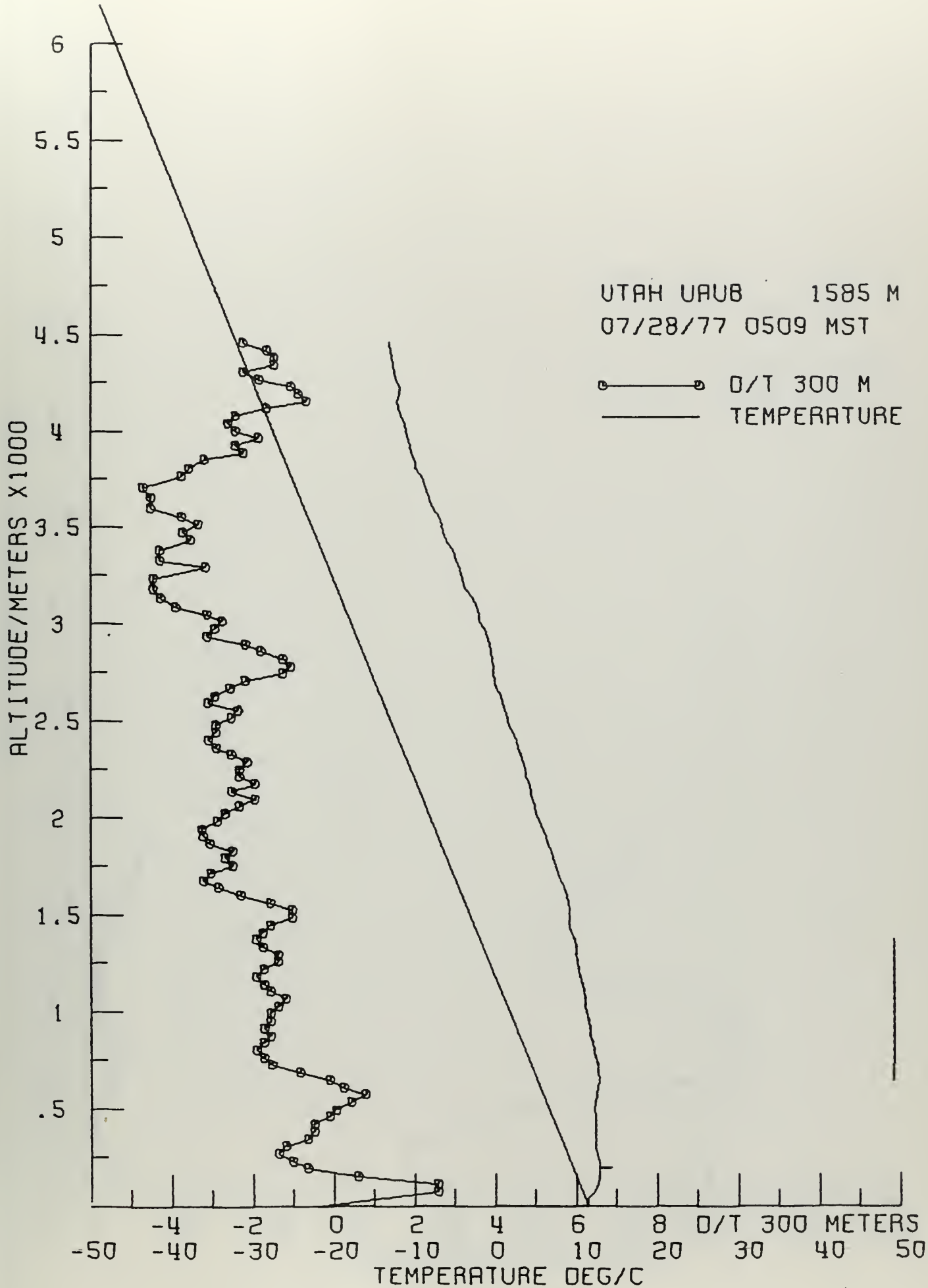
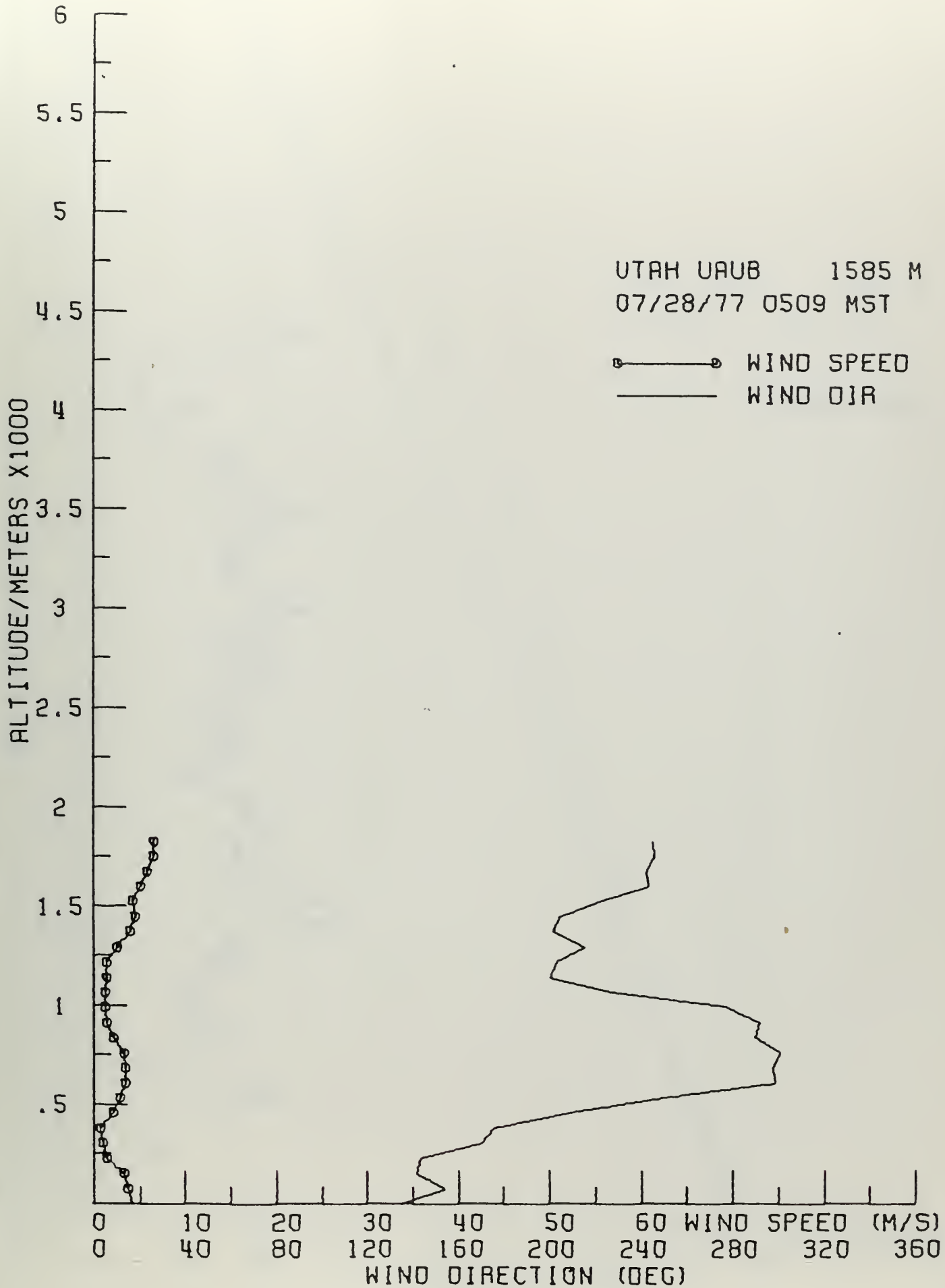
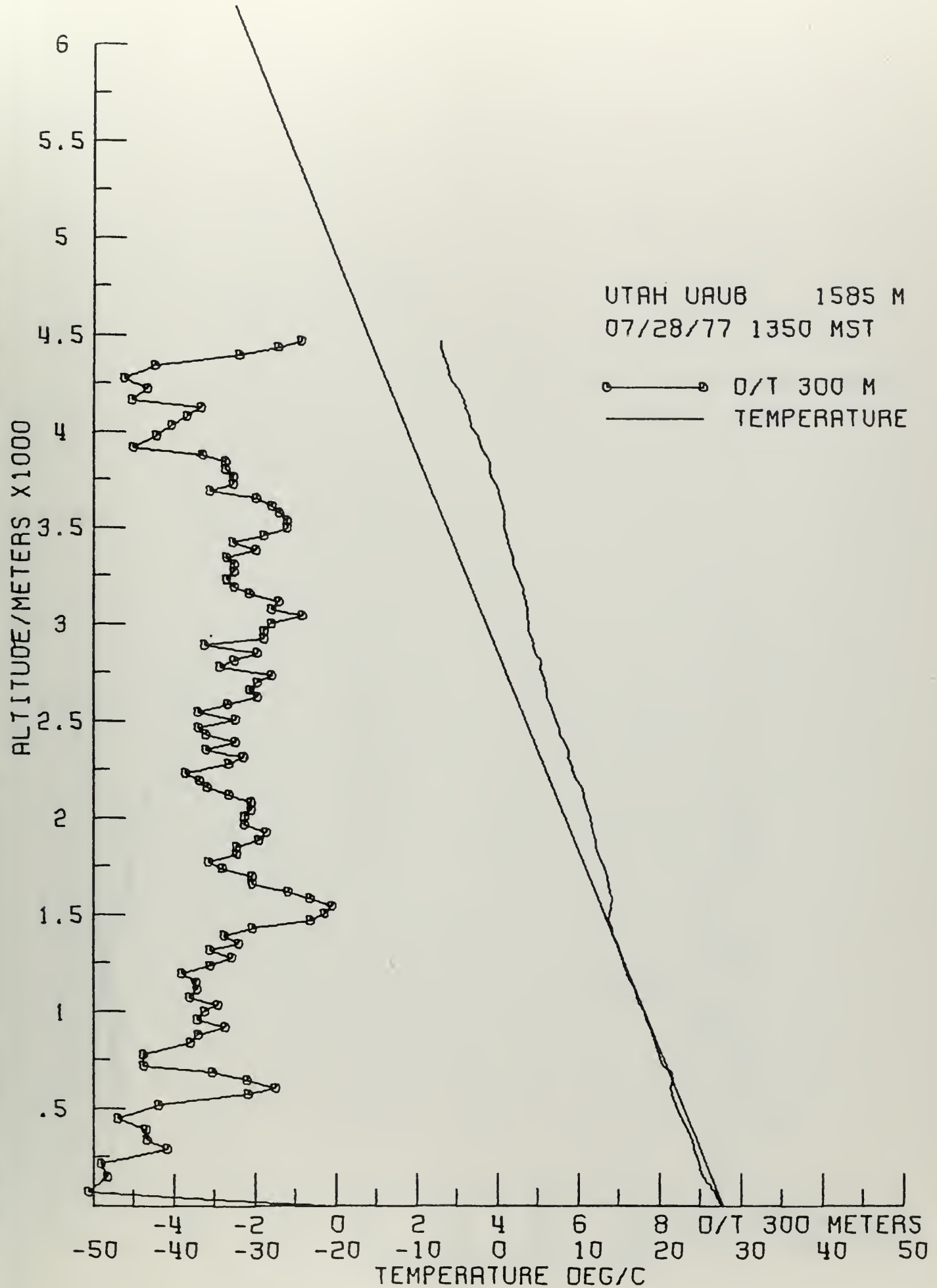
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH URUB 1585 M
07/26/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/28/77 0509 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/28/77 0509 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/28/77 1350 MST
D/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
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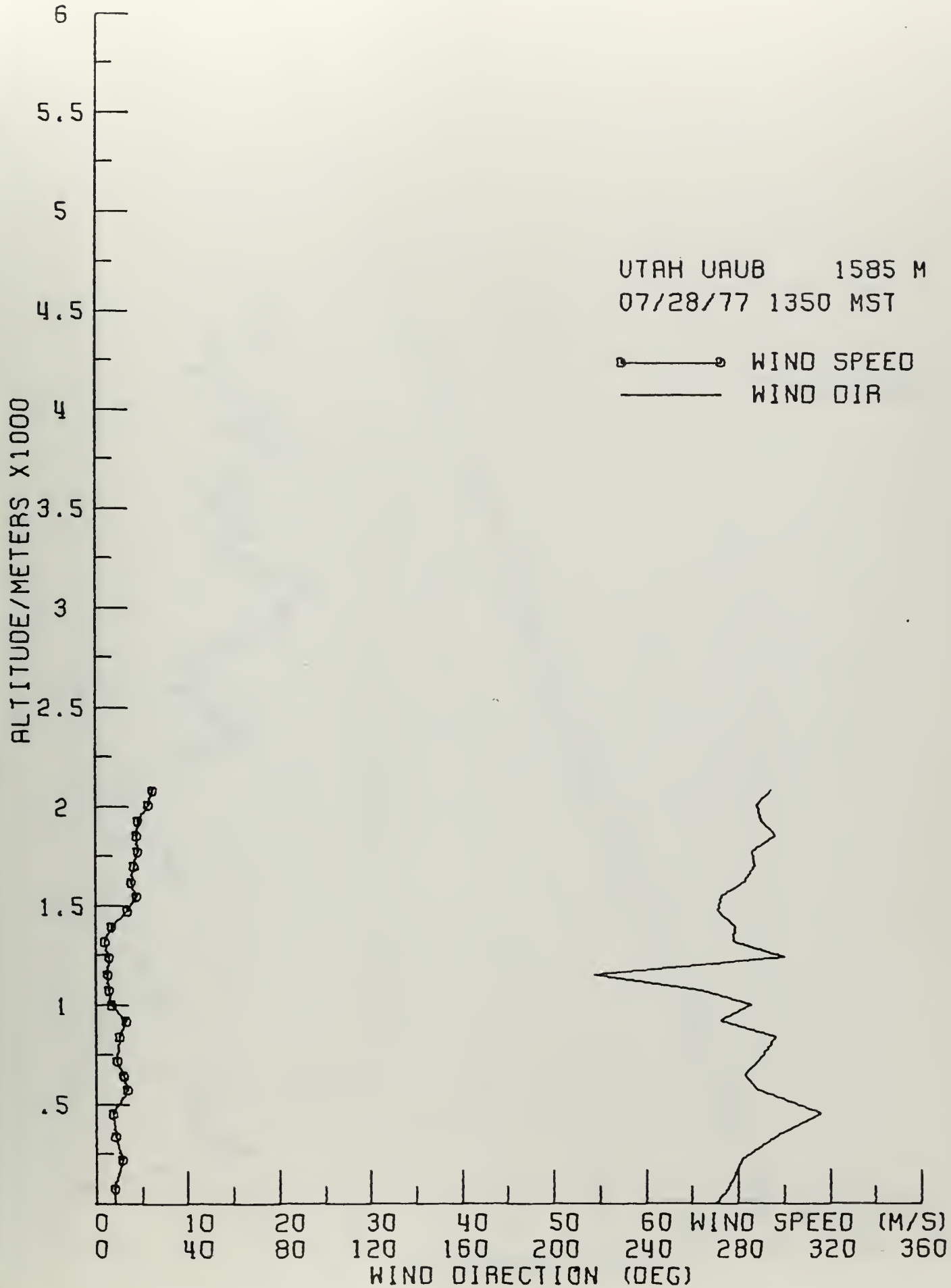
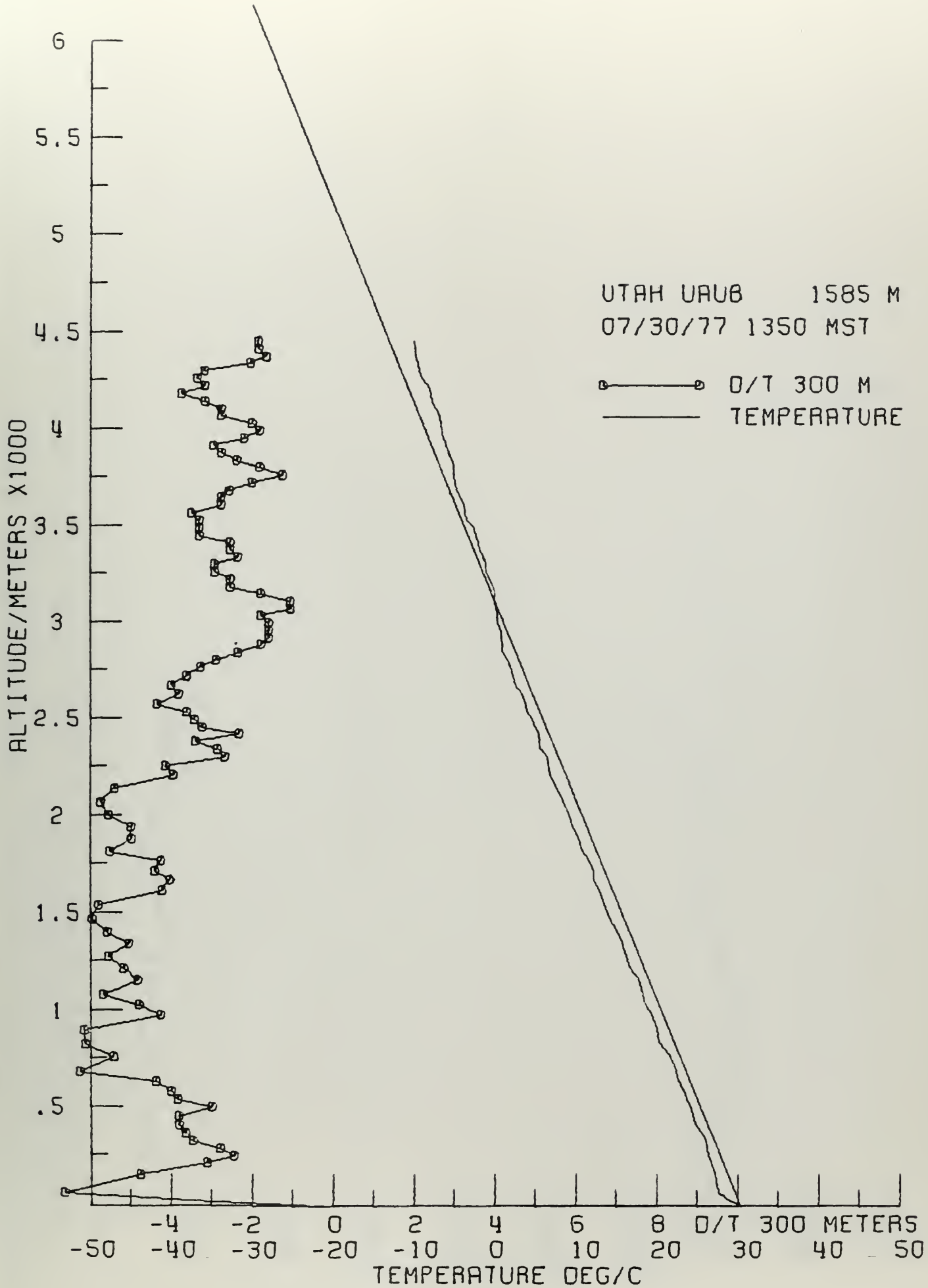
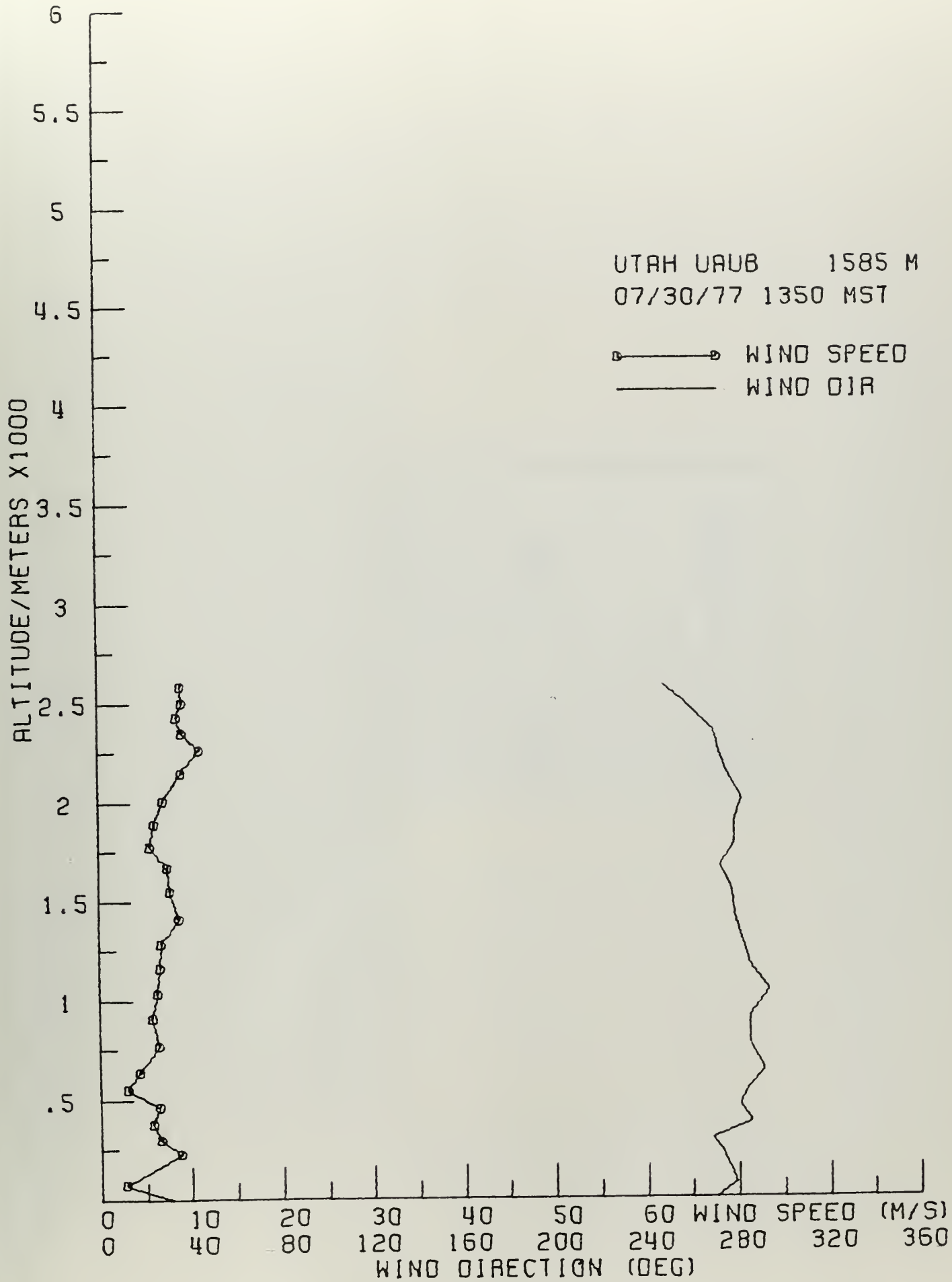
1.5
1
.5
-4 -2 0 2 4 6 8 D/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/28/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)


UTAH UAUB 1585 M
07/30/77 1350 MST
O/T 300 M
TEMPERATURE
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
-4 -2 0 2 4 6 8 O/T 300 METERS
-50 -40 -30 -20 -10 0 10 20 30 40 50
TEMPERATURE DEG/C


UTAH UAUB 1585 M
07/30/77 1350 MST
WIND SPEED
WIND DIR
ALTITUDE/METERS X1000
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
.5
0 10 20 30 40 50 60 WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)

Form 1279–3
(June 1984)

BORROWE

TN 859 .U62 W4

Monthly progre
for the p

DATE LOANED	BORROWER

USDI – BLM